

DAILY METAL REPORTER

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By H. T. WILDER

Manager of Distribution, Aluminum Co. of America

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By SIR RONALD L. PRAIN

Chairman, Rhodesian Selection Trust Limited

BRITISH METAL MARKETS

By L. H. TARRING

London, England

DOMESTIC METAL MARKET REVIEW

U. S. METAL IMPORT DUTIES

WASHINGTON REPORT

METAL STATISTICS

DECEMBER
1957



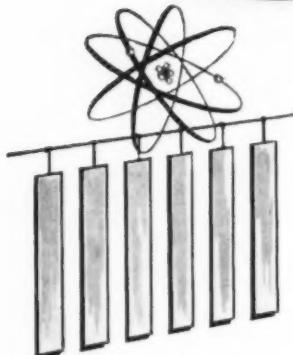
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TWO
LINE
Editorials

One of the missile experts says that by 1962 the United States will be sending visitors to other planets. If they guarantee not to make it a round trip, we would like to suggest some prospective passengers.

Any day now you can expect to hear of the development of an anti-anti-missile missile, to be used against the anti-missile missile which has already been announced for use against the atomic missile.

One of our experts asserts that the Russians' satellite is "already obsolete." Wonder how long it will be before they are selling those old obsolete Sputniks in antique shops?

After all, if the Russians really wanted to get rid of Gen. Zhukov, wouldn't it have been easier to send him up in Sputnik II instead of that poor dog?

Italian engineers predict that the Leaning Tower of Pisa will fall over in 2151. This is a catastrophe we intend to start worrying about not sooner than 2150.

METALS

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and
A Happy New Year

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BUSINESS IN MOTION

To our Colleagues in American Business . . .

"Printed circuits!" "Printed circuits!" You hear it on all sides today. And well you might. For printed circuits have so many advantages. They have compactness as compared to conventional wiring and compactness that makes possible better assembly arrangements and techniques. Numerous, time-consuming hand operations are eliminated, there are fewer rejects, shorter, less intricate assembly lines, and fewer soldering operations, as with printed circuits a single dip-soldering operation can solder all joints at once.

Revere, naturally, has been interested in printed circuits from their very inception. So Revere Research Engineers immediately went to work to perfect a copper that would meet all of the rigid requirements encountered in manufacturing printed circuits as well as those necessary to their efficient operation. Accordingly, they set up these rigid specification standards: there can be no peaks or valleys. Surface must be hard and of uniform density through and through and side to side to maintain positive conductivity throughout the circuit. Also, a hard surface permits resist to clean off easily as there are no pores to hold resist and cause trouble later when soldering. Even the most closely spaced and finest lines encountered in a printed circuit must have a sharp definition of the edges and be free from pits, pinholes and imperfections.

Also, the copper must be free from oxidation as it comes from the mill and without lead inclusions,

present a sufficiently clean surface so that fluxes will wet readily and when automatically soldered the solder coat will be uniform every time . . . free of skips or bald spots. Copper-to-laminate bond strength must be uniform and adequate. Revere Rolled Copper also shall exceed standard specifications as well as meet ASTM B5 specification for purity with a 99.9% minimum rating.

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Washington Report



December 10, 1957

THE U. S. Tariff Commission was the target of a barrage of words and statistics as the battle over higher import duties and quotas for lead and zinc reached a climax at hearings during the month in review. All points of view, including those of mine producers, smelters, importers, consumers, labor, Congressional leaders, and foreign interests, were on the firing line during the week of hearings which began November 19. When the smoke cleared the Tariff Commission announced it would accept briefs until December 10, the day this report was being written.

Even if the Commission recommends new tariffs, as it is expected to do, they are not likely to go into effect before the end of January or early February.

The recommendations would go to the new Trade Policy Committee, consisting of the Secretaries of State, Treasury, Defense, Interior, Agriculture, Commerce and Labor, for review by this Cabinet-level group before going to the President. By executive order the President could then put all or any part of the Commission's recommendations into effect. It is anticipated in some quarters there would be a grace period before any tariff changes would become effective.

If the Commission's recommendations are similar to those it made to the President in 1954 (namely a 50 per cent hike in the duty rates that prevailed on January 1, 1945) the new tariffs would be 2.10c a pound on slab zinc, 2.55c a pound on pig lead, and 1.80c a pound on the concentrates of each metal. Most industry quarters that favored the maximum legal increase in the duties, pointed out that the relief so afforded would not be sufficient to aid the domestic mining industry and that import quotas should be established for both lead and zinc.

Proposed Import Quotas

Under the system proposed by the Emergency Lead-Zinc Committee, import quotas would be set on a quarterly quota or a quarterly ceiling, whichever is lower, on both metals. The quotas would be based on the difference between the domestic consumption and the domestic mine production of both metals, plus secondary metal, for the second quarter preceding the quarter for which quotas are being fixed. The quarterly ceiling for lead would be 60,000 tons and 100,000 tons for zinc.

The ceilings would not apply for each metal when the price of pig lead exceeds 17.00c a pound or when slab zinc climbs above 14.50c a pound, in which case the quarterly quota for each metal would control. The committee asked that no more than 25 per cent of any effective quota under

the system be used for entries of either lead metal or zinc metal. Because of the "heavy stocks of metal and concentrates . . . which (now) overhang the domestic market," the committee suggested that the proposed 1958 quarterly ceiling for zinc be reduced to 80,000 tons.

Pro and Con Arguments

Those in favor of higher tariffs and/or import quotas cited the injury suffered by the domestic industry, the rise in unemployment in mining areas, and the need to maintain a strong U. S. industry for national defense.

Those against higher tariffs and/or quotas cited the injury which could be caused friendly nations who are major suppliers of these metals to the U. S., the increased costs which would be borne by U. S. consumers, and the impracticability of the proposed programs.

An important segment of the domestic mining industry that backed higher import duties went on record against import quotas, on the grounds that any such system would eventually make complete Government control necessary if equitable distribution is to be made to both producers and consumers.

Nickel Duties in News

Nickel duties also made the news during the month in review. Supplemental export quotas and relaxations of licensing restrictions and requirements on further nickel-bearing commodities in the 1957 fourth quarter were announced by the Department of Commerce on November 21. The action by Commerce reflected improved domestic supplies of these items. A supplemental quota of 500,000 pounds each was set for copper nickel alloy scrap containing 40 per cent or more copper and 5 per cent or more nickel, and for nickel copper alloy scrap. The originally-established 50,000-pound quota for pure nickel powder, cast and rolled nickel anodes,

and nickel and nickel alloy shot, was increased another 200,000 pounds.

In Washington a conflict of views was reported among Administration agencies over suspension of the 1.25c a pound import duty of metallic nickel. The State Department was said to be in favor of granting the President power to suspend the nickel duty as a possible compensatory action for Canada which would be adversely affected by the anticipated boost in U. S. tariffs on lead and zinc. Suspension of the duty reportedly was opposed by the Justice Department and the General Services Administration. Justice contended removal of the duty would retard development of an independent domestic nickel industry. GSA is opposed to the action because it would lower the sales value of its plant at Nicaro, Cuba, which produces unrefined metal which already enters the U. S. duty-free.

It also was disclosed here that President Eisenhower will ask Congress to grant him authority to reduce tariff rates by a total of 25 per cent. The Administration, in discussing renewal of the Trade Agreements Act, proposed that authority to enter trade agreements be extended for five years from the date of its expiration on June 30, 1958, and that the President be authorized to reduce any rate of duty existing on July 1, 1958, as follows: by 5 per cent of the duty annually for five successive years, or reduce a duty by this same total amount over a three-year period if no yearly reduction exceeded 10 per cent of the duty; by three percentage points ad valorem, without any yearly reduction exceeding one percentage point; to 50 per cent ad valorem, if an existing duty is in excess of that amount.

Aluminum Industry Growth

Representatives of the Big Three domestic aluminum producers — Aluminum Co. of America, Reynolds Metals Co., and Kaiser Aluminum & Chemical Corp. — painted a bright future of the aluminum industry at a hearing of a House Small Business subcommittee during the month in review.

Donovan Wilmot, Alcoa vice president, said that despite the current overabundance of primary aluminum, his company is spending approximately \$160,000,000 on additional basic aluminum production facilities this year and has programmed \$80,000,000 for similar expenditures in 1958. Wilmot said the industry's immediate job is to increase applications of aluminum.

Joseph H. McConnell, general counsel for Reynolds, told the House group that the U. S. will be using 10,000,000,000 pounds of aluminum a year by 1965 compared with a current annual rate of less than half that amount. He said annual domestic use should reach 6,800,000,000 pounds by 1960. McConnell stated total U. S. aluminum supply has increased from 2,400,000,000 pounds in 1950 to 4,670,000,000 pounds currently, or an increase of 95 per cent.

D. A. Rhoades, Kaiser vice president, said the future of the aluminum industry over the next several years

(Continued on Page 19)

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DOMESTIC ALUMINUM CONSUMPTION IN 1965 PLACED AT 4½ MILLION TONS OR DOUBLE USE DURING 1955

Rapid Expansion of Existing Markets and Development of New Ones Seen Reflecting Population Growth, Favorable Prices and Metal's Advantages

By H. T. WILDER, Manager of Distribution, Aluminum Company of America

SINCE last fall, of course, one very significant development has come about — aluminum production, after a decade of tight supply, has caught up with demand in a big way. Curiously enough, this is a coin with two sides. On the one hand, it means more scrambling for sales. I'm sure I don't have to point that out to this group. There is no feeling in the industry, however, that an ample supply of metal is in itself an undesirable condition. On the contrary, it seems to be just what the doctor ordered — providing the medicine doesn't choke the patient!

Before developing that point, though, I'd like to mention an interesting economic aspect of what we've seen in 1957. Those of you who have been in the industry as long as I have, which by the way is 38 years to-day, know that the industry is not immune to setbacks of a temporary nature. The drop in housing starts, automobile production and other durable goods from 1955 levels, higher cost of money, all have been responsible for the slackening of demand of many things including aluminum.

Does this mean aluminum is losing its position? I think not. Instead — and this is the other side of the coin I mentioned a moment ago — it actually means that we are making steady progress in our efforts to increase and intensify the use of aluminum in individual applications. This must be the case because we've been holding our own fairly well tonnage-wise in the overall market at a time when unit output of many significant applications has been at a reduced level. This could well be a long-pull gain.

Current Availability

But getting back to the current availability of metal. For many years now, important potential markets for aluminum have not been fully exploited because of uncertainty that metal would remain available. In an effort to overcome this situation, the aluminum industry has gone through one round of expansion after another. Yet except for a few short intervals, demand continued to outstrip supply.

The present surplus of metal, then, is actually a healthy sign. It means

that many more designers and fabricators, confident of the availability of aluminum, will now feel free to capitalize on the natural advantages of the lightweight metal.

This factor, as I believe was mentioned a year ago — this ample supply of metal — is considered by everyone in the industry to be the key to future market growth. With more primary ingot capacity being added next year, we feel confident that we are approaching a new period of dynamic market expansion — the kind of activity that has made aluminum an outstanding growth industry.

Projected Demand

Well, you may say, this sounds fine as a broad generality. It paints a glowing picture. But what is total demand expected to be in 1965? And what makes the industry so confident it will materialize?

Let me say first that average industry estimates for 1965 have not changed appreciably from those made last year. Though there is some variation, the generally accepted figure for total domestic consumption is still about 8.5 billion pounds or 4½ million tons for those of you who think tons sound bigger. This means the market will have at least doubled in ten years from the roughly 2 million tons consumed in 1955. In the aluminum industry, I would like to point out this is considered just par for the course! Consumption of aluminum has at least doubled in every decade since it first appeared on the market in 1888.

In this connection, I'd like to mention that a recent University of Illinois Bulletin gives added support to this estimate of future demand. The report is entitled "The Demand for Aluminum: A Case Study in Long-Range Forecasting." It is particularly interesting because the author uses three different approaches to the problem of forecasting the demand for aluminum in 1965 — two statistical methods (Trend Projections and Correlation Analysis), together with a survey of the outlook for aluminum products that make up total demand.

Statistical Surveys

Results of the two statistical methods coincide very well — 8.5 billion pounds for one, and 8.4 billion pounds for the other. The result of the third approach is only 5 per cent higher at 8.9 billion pounds. This difference, according to the author, is easily accounted for by the natural optimism of those reporting expected consumption of their particular products.

This study in statistical economics

was done by a graduate student at the University of Illinois. Since it was made independently by a non-industry man, I think you'll agree it offers added weight — if any is needed — to the projections made by the industry itself.

Assuming that the industry's projected demand is reasonably accurate, then, the big question is: How will this expanded market situation develop? Of the many answers that come to mind, three major ones stand out: (1) population growth, with parallel growth in the general economy; (2) industry factors that give aluminum advantages over competing materials, and (3) inherent advantages of the metal itself. Together, these three factors will lead to the rapid expansion of existing markets and the development of whole new markets. In the years ahead, applications once considered impossible or impractical will become everyday reality.

Population Growth

The first point — population growth — needs little amplification. Today, we are a nation of approximately 170 million. By 1965, this figure is expected to be upwards of 190 million — with the real boom coming in the years 1960-65. This represents a spurt of 20 million new consumers in only ten years. We are in the midst of a veritable population explosion.

The huge crop of children born during the war years is now approaching the 20-year age bracket. Since this is close to the median age for marriage, beginning around 1960 the number of new families should begin to grow by leaps and bounds. Experts estimate that the formation of households will rise from about 48 million per year in the spring of 1955 to more than 50 million by 1960 and between 61½ million to 67½ million in the period from 1960-75. One source says that in the 70's, there will be twice as many new homes built per year as were built in 1957.

With this development, you can look for a parallel increase in demand for automobiles, furniture, appliances, tools, sporting equipment, and a host of other consumer goods, to say nothing of the aluminum possibilities in the dwelling itself. Not only that, but if current trends are continued, the standard of living will continue to go up. From all indications, demand for goods and services will be unprecedented — and, gentlemen, if we do our jobs, our favorite metal will be right in the middle of this dra-

Excerpts of address at meeting of National Association of Aluminum Distributors, Camelback Inn, Phoenix, Ariz., November 1, 1957.

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matic, economic expansion. And our job, I might add, is basically simple: all we have to do is persuade the young people of tomorrow to trade their dollars for products made of aluminum.

Government Spending

All this, of course, is based on the hope and practical expectation of continued world peace. And this raises another question: what effect will the resultant decrease in government military spending have on future consumption of aluminum? While this situation could lead to temporary downward adjustments, it seems reasonable to expect that the net result will actually be favorable. After all, smaller military expenditures should channel more money into civilian areas of spending.

And I for one am still old-fashioned enough to believe that when it comes to spending his money, Mr. John Q. Public can do a better job than if he gives it to Uncle Sam as taxes and lets Uncle Sam spend it. Will this mean more aluminum sales? Again I repeat, it will, if only we work at our jobs.

Industry Factors

The second basic factor that virtually assures a doubling of aluminum consumption by 1965, are the industry factors that play an important part in aluminum's competitive position. Here I have in mind, particularly, the favorable price history, the prospect of a plentiful supply in the years ahead, and the outstanding research and development that have become synonymous with this business of making and selling aluminum.

Although the rising cost of materials and labor has forced a number of advances in price since World War II, with the exception of magnesium, aluminum has remained cheaper than other nonferrous metals, either on an actual weight basis, or on a volume basis, or both. Percentage-wise it has not increased as much as steel.

Price Advantages

Initially, the principal price advantage of aluminum, of course, is the fact that it weighs only about 1/3 as much as most other metals. Actually, though, aluminum results in other price advantages such as savings in transportation costs, reduced maintenance, higher payloads, less steel framing and foundations when used in buildings, lower production costs and in other important ways. For example, in the Alcoa Building in Pittsburgh, it is estimated that 30 to 50 per cent less steel framing was required than with standard masonry construction — a saving of 3,000 tons of steel, or more.

The supply outlook for aluminum, as I've already pointed out, is also a positive factor in the growth of demand. This sounds a little like a new economic principle facetiously formulated by one of our British friends a short time ago. Called "Parkinson's Law," it says in effect that work increases in direct proportion to the people available to do it. The effect of a plentiful supply of metal in the years ahead seems to me to follow this principle pretty well. If our experts are right, it may well prove to be a major factor in the need for future expansion to keep up with projected demand. An assured supply of metal

is certain to open up new markets. For that reason, Alcoa and other basic producers are planning increased aluminum production in the years ahead. This assurance of adequate supply is bound to be an encouraging element in stimulating the growth of industry markets.

Research and Development

Favorable price and supply factors, pointing as they do toward broader applications for aluminum, are backed up by outstanding efforts in research and development. These twin activities teamed with enthusiastic, imaginative sales programs have been largely responsible for the growth of the industry to date. In my own company, our sales development group, working closely with research, has frequently been able to create whole new markets for aluminum. The monocoque construction of trailer vans is one good example.

A vast range of new possibilities exists, and we firmly believe that broad areas of application remain unexplored. As the aluminum industry moves forward, a great deal will depend on the resources of our research and development organizations. Again, we are confident that they will continue to have outstanding success in applying aluminum's amazing properties to the practical needs of tomorrow's consumers.

Metal's "Universality"

Phenomenal growth in population and an industry well equipped to meet competition — these are dominant factors in continuing optimism about the future. Added to them, however, is a third and equally important factor — the characteristics of the metal itself. The word "versatility" is often used as a descriptive term. But aluminum's adaptability to such a wide range of applications suggests another word — "universality." Users of competitive materials are aware of this too, for more and more fabricators of other metals are climbing aboard the aluminum bandwagon.

With an assured supply, this universality of aluminum will without a doubt pace the growth of new markets and the expansion of existing ones. Stimulated by active research and development, plus intense merchandising effort, markets such as the building industry, transportation, consumer durable goods, machinery and equipment, the electrical field and containers and packaging will experience rapid growth.

Take the transportation industry, for instance, which includes aircraft, automotive, railroad and marine applications. Though already one of the two leading markets, transportation offers tremendous potential for increased applications of aluminum for reducing dead weight with resultant increase in efficiency and greater comfort.

Automotive Industry Usage

One outstanding example of this principle is the automotive industry where aluminum is used for trucks and buses. In the case of large semi-trailers, for example, highway weight limitations make it imperative that extensive use be made of aluminum to reduce dead weight thereby increasing payload. The same principle applies in the Greyhound Scenicruiser,

where the use of three tons of aluminum permits each bus to carry 20 additional passengers with no increase in operating cost.

The largest potential for aluminum in the transportation field, however, is in the passenger car market. Now that an adequate supply of metal is available, Detroit designers can let their design imaginations run rampant. In the future, we'll continue to have such aluminum components as pistons, decorative trim, automatic transmissions and more power equipment. Beyond these, however, you can write your own ticket. I am sure that we can look for an increasing use of aluminum in new models. What is the potential of the automotive field? The Cadillac Eldorado Brougham has some 255 pounds of aluminum per unit while the national average is about 40 pounds. Surely these figures demonstrate the tremendous possibilities. You may have seen the article in the October issue of *Modern Metals* where Mr. H. F. Barr, Chief Engineer of Chevrolet makes the prediction that the automobile industry will average 75 pounds per car by 1965. This alone would generate 600 million pounds per year.

Construction Field

In the building and construction field, we find the same general picture of great market potential. The inherent advantages of the metal combined with finishes in a wide range of colors and textures are stimulating architects everywhere to design in aluminum. The demand for curtain-falls — initiated by our own 30-story Alcoa Building — will continue to find enthusiastic acceptance in commercial and industrial buildings. The market for roofing, insulation, windows, doors, hardware, rain-carrying equipment and a host of other functional and decorative building applications will likewise grow tremendously. A doubling of this market by 1965 also appears to be a conservative estimate.

In the residential building field lies a virtually undeveloped market for a metal with the universality of aluminum. In the recently announced Alcoa Care-Free Home, architects and homeowners alike can now see a dramatic demonstration of the happy results and almost limitless applications of aluminum in American homes. I am not nearly as familiar with the homes developed by others, but they undoubtedly offer many interesting applications, some of which are bound to stick.

Other Developments

And this is not the end of the story by any means. All I can hope to do here today is sketch in the broad trend — a few highlights. Rapid developments are going on in the rail, aircraft and marine fields. The electrical field is right in the middle of our market thinking, too. Uses for aluminum already range from high-voltage high lines to transformer shields in radio and TV sets. In both communications and electronic equipment, the trend is toward aluminum. With the electronics industry a key to more and more automation, the signs are easy to read.

Machinery and equipment, consum-
(Continued on Page 13)

LARGE COPPER PRODUCERS OF WORLD CAN RESTORE MARKET STABILITY BY CUTTING BACK PRODUCTION

Consumption of Red Metal at Current Price Levels Will Be Stimulated and Should Assure for Industry Continuation of Its Historical Growth Factor

By SIR RONALD L. PRAIN, O.B.E., Chairman, Rhodesian Selection Trust Limited

Up to March, 1956, the copper industry of the world had for many years enjoyed a period of unprecedented prosperity. This was based on an uninterrupted demand for copper arising from major schemes of reconstruction and development put in hand after the war, of military requirements in particular caused by the Korean War, and by governmental stockpiling policies.

These cumulative developments had combined to create a shortage in supplies, with the inevitable consequence of a price increase. The resulting prosperity was not viewed by all without serious misgivings about the future; in the short run the possibility of a severe reaction, in the long run the loss of many of copper's traditional uses.

Oversupply

The same shortages and high prices caused both public and private expenditure on the development of new mines, many of which have come into production in the last two years. It is this feature which has reversed the trend and the copper market is at present in a condition of oversupply. The inevitable price reaction has occurred with a speed and severity which has surprised most observers.

I have dealt at the beginning of this statement with the short history of the copper business in the last few years. It will be expected of me that I should give some expression of opinion on the future outlook.

Outlook

The short-term outlook has seldom been more confused and he would indeed be a rash man who ventured to express a view as to what course the copper market might take during this financial year. Not only are normal copper market considerations involved but, on this occasion, we are concerned with greater and more general world tendencies, which are affecting other commodities and may affect the general level of world trade.

It is more permissible to take a long view, and indeed the mining business consists, and always has consisted, in the taking of the forward view. On this basis I feel that the fall in the price of copper which, as I said earlier, has surprised most observers by its severity and speed and which

may cause the industry many short-term problems, may on the other hand be a blessing in disguise. Just as at high price levels we were concerned about the future of the industry, so at current levels there can be little doubt that the consumption of copper will be greatly stimulated and should assure for the industry the continuance of its historical growth factor.

Copper Price

The year ended June 30th, 1956, saw the turn of the copper market which had been on the increase more or less continuously since 1950. The price reached an all-time peak during March, 1956, and since then it has receded to about the level at which the rise began. The rise occurred over a period of 5 to 6 years, whereas the fall has occurred in a period of about 1½ years.

The basic reason for this transformation in the fortunes of the copper producing industry is quite simple, namely, that whereas the trend of consumption has been maintained throughout this period on a steadily rising scale, the supplies of copper on the other hand have increased very substantially. This in turn is due mainly to two factors: the first that there has been a greater absence of strikes in the main producing centres; the second, the bringing into production of the many new mines which have been developed either under the stimulus of the Korean War or on account of rising prices.

Supply and Demand

This turnabout in the statistical position, which had been foreseen for some time, has naturally affected the price of the commodity in accordance with the laws of supply and demand. Shareholders who have read my statements during the last two years will not have been surprised that there has been an inevitable reaction in the price. Nevertheless, the reaction, though foreseen, has been sharper than most observers in the industry would have cared to predict two years ago. Recent weeks have seen the price reach a point where some resistance appears to have been encountered. It is too early to say what may be the outlook for the next year. There are many factors of uncertainty in the situation, and many of these factors are not necessarily peculiar to the copper industry. In fact similar conditions have been experienced in other commodities.

It is important, however, in assessing the overall copper picture to

maintain some sense of proportion. It is well known that when copper was rising to unexpectedly high levels many sections of the producing industry viewed this rise with the greatest misgivings, partly because of the damage that might be permanently done to the development of copper as a commodity, and partly because of the danger that the reaction in price would be proportionately drastic. Now that this reaction has occurred, the converse must be true that present price levels do not constitute any threat to the future development of copper as an industrial material, and for this reason, correspondingly, one is justified in placing greater confidence in the long-term outlook for the commodity than was the position two years ago. We would expect, therefore, that copper will continue to reproduce its historic growth factor and that if this is so, the present imbalance between supply and demand should be corrected and the copper producing industry will continue to enjoy the development which has characterized it during this century.

Voluntary Output Curbs

There remains, however, one question which has exercised the minds of people concerned with this industry, whether as producers, consumers or shareholders in companies predominantly interested in copper. It must be presumed that it has also exercised the minds of the governments of those countries where copper plays an exceptional part in the national economy. This question is that of how to avoid the extremes of high and low prices which have characterized the last two years, and which in fact have been a feature of the copper industry in a lesser degree over a much longer period. Of the various suggestions which have been put forward on occasions in the past none appears to me to offer a better chance of stabilizing the position than for the larger producers of the world to impose on themselves from time to time some voluntary restriction of output. There is little that such producers can do to alter the pattern of demand, but there is much they can do to alter the pattern of supply by orderly curtailment when prices reach certain levels. If the majority of larger producers adopted this course the degree of curtailment necessary at the present time to balance the statistical picture might not be found to be unduly great.

We have shown where our opinion
(Continued on Page 13)

Excerpts from chairman's statements for Rhodesian Selection Trust Limited and Mufulira Copper Mines Limited, circulated in advance of annual meetings at Salisbury, Southern Rhodesia, December 13, 1957.

U. K. INTERESTS BELIEVE FURTHER COPPER OUTPUT CUTS NECESSARY TO RESTORE CONFIDENCE IN METAL

Export Quotas Imposed by International Tin Council; Lead Easier With Supplies Plentiful; Zinc Prices Decline to Lowest Levels Since 1953

December 6, 1957

DURING the past month, copper price movements on the London market have not been very wide although the rally in the early part of the month on temporarily better Wall Street advices and a threatened strike at the Potrerillos mine (which has not materialized) was not maintained.

General sentiment regarding the copper price is not particularly strong here at the moment, but there is a greater disposition to believe that further falls are less probable and that if they occur they are likely to be limited in extent. A slightly apprehensive watch continues to be kept on the trend of economic activity in the United States as there are some fears that copper consumption there might recede if the general level of business activity does not soon begin to make a better showing.

Consumption Picture

As far as the U. K. is concerned the consumption picture, whilst not all that could be desired, is really not at all bad. In support of this contention, one can cite the figures for the first three quarters of the year which showed a total consumption of some 477,000 tons, or nearly 7,000 tons more than in the corresponding period of 1956. Although there has been some slowing down in building and general engineering activity, the motor-car industry in this country is operating at a high level, and appears to have quite good order books for the new season's models.

Another favorable development of significance, during the past month, has been a revival of Russian demand for copper wire with indications that the Soviet will probably take at least as much in 1958 as it has done in 1957. Since exports of wire from the U. K. this year have been at a high level, this is definitely encouraging news.

European consumers as a whole, however, are still inclined to the view that there is probably some surplus of production over the current level of consumption and some further curtailment of output appears necessary to restore confidence in the outlook, in the absence of any signs of an appreciable improvement in global consumption. The report of the Rhodesian Anglo-American Corporation indicated that although no definite announcement of a cut in output on the part of the Group's mines has been made, their total output in 1957 will, in fact, be fully 10 per cent less than had been anticipated, mainly owing to water problems at the

By L. H. TARRING
London, England

Bancroft mine which have prevented it building up output to the planned level according to schedule.

London Meeting

Rumors have been heard at intervals for some little time about the possibility of discussions being held on the broad subject of copper supplies, and it is now learned that early in December several important producers were represented at a meeting with consumers in London at one of the meetings of the International Wrought Non-Ferrous Metals Council. No details have been released officially, but it is understood that the meeting was quite unofficial and no formal decisions were taken.

Observers were present from Chile but these are reported to have been there as private individuals and not as representatives of the Chilean

U. K. COPPER STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics, production of copper in the U. K. in September amounted to 10,926 tons primary refined and 9,002 tons secondary refined, with 761 tons rough. During the month stocks moved as follows: blister copper from 20,902 tons to 19,604 tons and refined rose from 77,693 tons (comprising 30,419 tons at consumers, 14,896 tons in L.M.E. warehouses and 23,378 other stocks) to 81,211 tons (comprising 39,265 tons at consumers, 18,078 tons in L.M.E. warehouses and 23,868 other stocks). Consumption showed a welcome recovery from the August level as detailed below:

Product	Sept. 1957	Jan.-Sept. 1956	1957
Unalloyed Copper Products			
Wire (Bars)	23,054	177,825	199,659
Rods, Bars & Sections	1,639	14,157	13,049
Sheet, Strip & Plate	4,905	42,046	42,756
Tubes	5,156	39,145	42,823
Castings and Misc.	650	5,850	5,850
Alloyed Copper Products			
Wire	1,310	13,256	12,280
Rods, Bars & Sections	10,884	93,609	88,786
Sheet, Strip & Plate	7,619	85,809	66,046
Tubes	1,619	16,726	16,521
Castings and Misc.	6,500	57,157	57,157
Copper Sulphate	2,848	37,295	34,338
Total All Products	66,174	582,875	579,258
Copper Content of Output			
Consumption of Refined Copper (2)	55,070	470,481	477,194
Consumption of Copper and Alloy Scrap (3) (copper content)	43,883	368,367	375,607
Consumption of Copper and Alloy Scrap (3) (copper content)	11,187	102,114	101,587

NOTE:

- (1) Consumption of H. C. Copper and Cadmium Copper Wire Rods for Wire and production of Wire Rods for Export.
- (2) Virgin and Secondary Refined Copper.
- (3) Consumption of copper in scrap is obtained by the difference between copper content of output and consumption of refined copper, and should be considered over a period since monthly figures of scrap consumption are affected by variations in the amount of work in progress.

Government. It was interesting to note, however, how sensitive the market is likely to be to any developments in connection with production, since the mere fact that the meeting was being held, seemed to be enough to cause an advance of about £4 a ton in open market prices here. Most of this, however, was quickly lost when it was realized that no definite proposals had been made regarding the curtailment of production.

There seems little doubt that what is really needed to restore confidence is for some trimming of Chilean production, preferably accompanied by a similar move by the Belgian Congo.

Tin Price Movements

Some fairly dramatic price movements were seen in the tin market during November. With consumers more or less all over the world showing very little buying interest, and an increasing volume of metal being offered to the Buffer Stock, doubts began to emerge as to whether the funds at the disposal of the Buffer Stock would prove adequate to absorb all the surplus before the International Tin Council met again in January.

Whilst cash prices were held steady at the minimum support level of £730 a ton, the almost total lack of buying interest forced down the Eastern price and this in turn led to increased selling pressure on the forward price on the London market, with the result that this declined with increasing momentum until it was no less than £50 a ton below the cash figure.

The International Tin Council, however, first advanced the date of its next meeting to December 11, and then further advanced it to December 4 and at the same time, announced that the producing countries had been asked to provide the second contribution for the Buffer Stock, equal to 5,000 tons of tin. The delegations of the countries concerned urged their Governments to provide the whole sum in cash at £730 a ton. These moves went a long way to restore confidence, but prior to the end of the meeting forward metal was still at some discount from cash.

The I. T. C. meeting in London on December 4 and 5 took drastic action to restore the situation. Not only did it announce the imposition of export quotas effective from December 15, for a period of three months which represents a cut of no less than 28½ per cent over all from the rate at which the six producing countries were operating in the 12 months to September 30, 1957 (which was much larger than most people had anticipated), but they also authorized the Buffer Stock Manager to operate on

AVERAGE BRITISH PRICES FOR COPPER, TIN, LEAD, ZINC

(Per Long Ton)

Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER				TIN				LEAD				ZINC	
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following	Current Month	3rd Following	Current Month	3rd Following	£ s. d.	£ s. d.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1954 Averages	248 17 11	239 17 7	249 0 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4	78 5 4	77 16 11	90 13 4	89 12 3	95 3 7	95 3 7
1955 Averages	351 14 11	341 0 3	352 5 6	740 2 12	736 12 11	740 12 8	105 17 3	105 9 6	90 13 4	89 12 3	97 14 3	97 14 3	95 3 7	95 3 7
1956 Averages	328 14 5	324 13 1	329 1 8	787 14 9	774 7 7	788 13 3	116 6 5	114 8 9	97 14 3	97 14 3	95 3 7	95 3 7	95 3 7	95 3 7
1957														
January	265 17 11	264 14 4	266 3 2	789 3 2	771 10 5	789 16 4	116 5 1	114 10 8	103 5 1	98 13 8				
February	245 11 2	244 2 0	245 16 3	770 16 9	752 9 6	771 8 6	113 3 0	112 6 11	99 8 11	96 17 0				
March	239 10 11	239 2 9	239 14 6	770 14 6	756 8 7	771 7 2	113 2 1	112 6 11	96 12 3	94 15 9				
April	241 19 2	242 15 9	242 2 0	774 4 9	768 7 6	774 17 6	111 17 5	111 14 1	98 7 6	94 13 5				
May	237 17 5	238 1 2	238 0 3	765 8 1	763 8 6	765 15 3	99 9 3	99 16 1	85 15 7	82 8 3				
June	227 2 8	228 16 2	227 5 9	762 10 0	759 14 9	762 16 10	91 13 9	91 19 9	74 6 1	73 16 4				
July	217 10 12	219 11 9	217 14 9	753 2 8	750 3 8	753 13 1	90 12 3	91 4 11	75 3 1	73 14 11				
August	208 12 3	210 12 7	208 15 9	740 9 9	748 18 1	740 6 8	91 14 6	92 0 3	73 17 10	73 13 9				
September	193 18 2	197 5 1	194 3 4	739 13 7	739 16 11	740 0 11	89 16 9	90 9 1	73 1 9	73 7 5				
October	186 9 8	190 0 9	186 14 7	731 12 2	728 15 8	731 17 5	85 18 1	86 10 1	69 3 7	69 4 4				
November	187 18 7	191 17 9	188 3 4	730 5 3	710 12 7	730 10 6	83 3 4	83 6 2	67 10 6	67 1 3				

the market should the price of tin metal reach the middle range during that period.

This, it is understood, was to ensure that there will not be an undue rise in the price of tin, as might well have occurred in the light of the Council's decisions, especially as many people were already of the opinion that sales to Buffer Stock in recent weeks had considerably exceeded the actual surplus of production over normal consumption. The fact that a further contribution has been called for the Buffer Stock indicates that it was already holding, or on the point of holding, 10,000 tons of tin and a striking feature is that signatory countries have been called upon to provide the whole of this money by December 6.

It would seem, therefore, quite assured that the minimum support price of £730 a ton will be adequately protected in the coming months, and unless something quite unforeseen happens, the sharp cut in the export quotas for the next three months should make certain that no embarrassing tonnages will be available for offer to the Buffer Stock.

At the same time, it is interesting to see that in order to ensure that the market does no swing too violently in the other direction, the I.T.C. is prepared to see Buffer Stock tin sold at lower levels than were previously permitted, thus indicating its general desire to try and achieve rea-

U. K. LEAD STATISTICS

The British Bureau of Non-Ferrous Metal Statistics reports lead consumption during September as 29,519 tons (14,721 tons imported virgin, 6,273 tons English refined, 8,524 tons scrap, including remelted) against 24,758 tons the previous month. Production of English refined during the month amounted to 7,852 tons compared with 6,245 tons in August. Full consumption details are given below:

	(Long Tons)		
	Sept.	9 Months	Jan.-Sept.
	1957	1956	1957
Cables	9,556	84,047	86,603
Batteries — as Metal	2,303	20,593	20,584
Battery Oxides	2,096	19,213	17,699
Tetraethyl Lead	2,057	15,697	15,807
Other Oxides and Compounds	2,163	19,423	17,095
White Lead	936	7,805	7,184
Shot	342	3,345	3,209
Sheet and Pipe	5,517	55,239	51,249
Foil and Collapsible Tubes	389	3,694	3,301
Other Rolled and Extruded	526	5,801	4,874
Solder	1,099	10,228	9,415
Alloys	1,477	12,566	12,514
Miscellaneous Uses	1,058	9,199	9,501
Total Consumption of which	29,519	266,850	259,035

Imported Virgin Lead	14,722	129,565	124,047
English Refined	6,273	63,573	59,419
Scrap, including remelted	8,524	73,712	75,569

U. K. TIN STATISTICS

During September stocks of tin in the U. K. remained virtually unchanged, ending the month at 6,308 tons compared with 6,320 tons at the beginning of the month. Production of primary tin in the U. K. was 2,260 tons, rather less than the 2,742 tons in August. Consumption details for September are as follows:

Trade	9 Mos. Ending Sept. 30th Sept.		
	1957	1956	1957
Timplate	939	7,219	8,793
Timming:			
Copper Wire	45	357	398
Steel Wire	8	78	75
Other	66	632	542
Total	119	1,067	1,015
Solder	145	2,152	1,505
Alloys:			
Whitemetal	237	2,585	2,036
Bronze & Gummets	203	2,044	1,765
Other	40	339	283
Total	480	4,968	4,084
Wrought Tin (1)			
Foil & Sheets	21	215	215
Collapsible Tubes	36	255	244
Pipes, Wire & Cap-sules	3	34	46
Total	60	504	505
Chemicals (2)	84	759	823
Other Uses (3)	9	91	80
Total All Trades	1,836	16,760	16,905

(1) Includes Compo & "B" metal.

(2) Mainly Tin Oxide.

(3) Mainly Powder.

sonable price stability, within the middle of the three-price ranges laid down in the Agreement, namely, £730 to £830 a ton.

Stocks in London Metal Exchanges during November rose sharply from 3,657 tons to 7,695 tons—the highest level since open market trading was resumed. Much of this metal is, of course, in Buffer Stock hands and not available to the market.

Lead Market Dismal

The past month has been another dismal one as far as the lead market is concerned. With supplies plentiful, and rather discouraging indications regarding the trend of U. S. domestic consumption, to say nothing of the expectation that the U. S. A. may impose higher import duties early in the New Year, prices sagged steadily during November, losing about £10 a ton on the month.

The gap between the London and U. S. prices widened to such an extent that although it was resisted as long as possible, the U. S. quotation eventually had to be dropped by half a cent on December 2. Although this had been regarded as almost inevitable, it, nevertheless, further depressed sentiment on this side of the Atlantic and resulted in a further step downwards in prices here.

It now seems fairly certain that

the dearer credit policy of the Government and limitation of capital investment, will slow down the rate of activity in the building industry and this is curtailing demand for pipes and sheets to some extent. In the first nine months of this year consumption was nearly 8,000 tons down compared with the same period of 1956, but the offtake in cables was rather higher and the battery trade after being rather dull in the early part of the year is currently benefiting from the normal seasonal replacement demand and the high level of motor-car production.

On December 4 the Board of Trade followed up its October announcement that it intended to dispose of its remaining stocks of lead amounting to about 20,000 tons by announcing that it was inviting tenders for the first 7,200 tons of this quantity for delivery and pricing from January 1, 1958 at the rate of 1,200 tons a month. Of the 7,200 tons, only about 1,900 tons will be offered by open tender, the remainder being offered back to the original suppliers. In view of the limited quantities involved, and the knowledge that such a release was in prospect, this had no (Continued on Page 19)

U. K. ZINC STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics stocks of zinc in the U. K. amounted to 41,255 tons at the end of September against 44,207 tons the previous month. Production also fell slightly over the month to 6,379 tons. On the other hand consumption rose to 27,792 tons from 20,381 tons the previous month. Full consumption details are given below:

	9 Mos. Ending Sept. 30th Sept.		
	1957	1956	1957
Brass	8,441	78,642	70,862
Galvanizing	8,474	78,383	79,422
of which—			
General	2,917	25,829	25,479
Sheet	2,478	23,275	27,575
Wire	1,743	15,601	15,340
Tube	1,336	13,678	10,828
Rolled Zinc	1,885	17,127	16,978
Zinc Oxide	2,480	19,986	19,994
Zinc Diecasting & Forming Alloy	4,467	28,061	31,078
Zinc Dust	1,085	7,095	8,593
Miscel. uses	960	8,886	8,803
Total All Trades	27,792	238,180	235,730
of which—			
Slab Zinc High Purity (99.99%)	4,905	31,852	34,145
Electrolytic & High Grade (99.95%)	4,923	45,211	42,715
G.O.B. Prime Western and Debased	10,440	93,169	95,089
Other Virgin Material	218	2,455	2,204
Remelted Zinc	571	4,062	4,566
Scrap — Zinc (Concentrate) Zinc Metal, Alloys & residues	3,106	24,857	24,899
Brass and Other Copper Alloys	3,629	36,574	32,112

r Revised.

1965 U. S. Aluminum Use May Double That of '55

(Continued from Page 9)

er durable goods, atomic energy, containers and packaging — these are all markets that will continue to broaden and see many new developments. To center on one for a moment, let's take the broad packaging field, for it has literally mushroomed in recent years.

Packaging Field

This market includes such diversified products as bottle caps and similar closures, foil for flexible containers and packages, household foil and many other disposable containers used in the food and drug industries. The eye-appeal of aluminum foil imprinted with colorful designs has caught on like wild-fire. Hardly another material can boast the point-of-sale advantages of aluminum foil. Whole new ideas in food merchandising have resulted. A few minutes spent strolling through today's super market affords dramatic evidence of the impact this packaging material has made on consumer buying habits.

Aluminum foil containers of all kinds do much more than simply dress up products. They are nontoxic, greaseproof and provide an effective moisture seal. In addition, in the case of the rapidly growing frozen and pre-cooked foods industry, aluminum foil offers the multiple advantage of permitting foods to be thawed, heated and served in the same package in which they are supplied.

Aluminum Cans

Exciting things are happening in closures and collapsible tubes, too. But we haven't even mentioned the real "plum" — cans made of alu-

minum. Recent announcements by major container manufacturers indicate that aluminum cans are making rapid progress toward becoming an economically feasible replacement for today's tin-plated cans. The new arrangement made by Reynolds with Standard Oil is a bold venture in this field. The potential use of metal for this one application is staggering. All in all, the container and packaging field, though still relatively small set alongside building or transportation, will undoubtedly assume a much larger portion of the total demand picture in the years ahead.

As 1957 draws to a close, then, this over-all challenge of what I like to think of as "Opportune Abundance" is what the industry sees ahead. Perhaps at no other time in its almost 70-year history has the industry been able to see the direction of its growth so clearly.

Output Cuts Can Restore Copper Market Stability

(Continued from Page 10)
lies by voluntary reduction of our output to 90 per cent of capacity.

Copper Marketing

A subsidiary factor is the question of different marketing methods. I say subsidiary because the basic influence on copper prices is the statistical position. In other words production policy rather than marketing policy appears to me to be at the root of the problem.

So far as our business is concerned it will be recalled that early in 1955 we were asked by the British Non-Ferrous Metals Federation to adopt a system of quoting prices which would offer a more stable price level

than the prices quoted by the London Metal Exchange. I made it clear in my statement last year that we have been prepared always to examine any marketing system which our customers, and other importers of copper into the United Kingdom, may desire. I have also stressed the fact that this is a question which concerns not so much our shareholders as our customers.

During the past year, at the request of the importers of copper into the United Kingdom, the two Rhodesian groups jointly presented to these importers certain proposals designed to achieve a uniformity of price for Rhodesian copper imported into the U. K. These proposals were designed to meet the wish of the importers to have a Rhodesian price system which, while not deviating too far from the general level of prices on the London Metal Exchange, would enable copper prices to remain unaltered for longer periods.

Unfortunately, after several months of negotiations, it became clear at the beginning of this month that it would not be possible to reach agreement between the Rhodesian producers on the one hand and the British importers on the other. The industry was thus faced with the continuance of a dual price structure in the United Kingdom which is not a position that should be maintained indefinitely. We were, therefore, not surprised to receive a letter from the British Non-Ferrous Metals Federation in which a request was made for us to consider a reversion to the London Metal Exchange basis of pricing. In line with our declared wish to conform as far as possible to the wishes of users of our copper, we have agreed to accede to this request.

Copper Brands

Deliverable Against Commodity Exchange, Inc.

Brand or Marks	Producer	Grade	Brand or Marks	Producer	Grade
B. E. R.	American Smelting & Refining Co. (Baltimore, Md.)	Electrolytic	C & H	Calumet & Hecla Consolidated Copper Co.	Lake
P. A.	American Smelting & Refining Co. (Maurer, N. J.)	Electrolytic	C. R.	Copper Range Company	Lake
T	American Smelting & Refining Co. (Tacoma, Wash.)	Electrolytic	Q. M. CO.	Quincy Mining Company	Lake
B. & M.	Anacinda Copper Mining Co.	Electrolytic	B. C. R.	British Copper Refiners, Ltd.	Fire Refined High Conductivity
AE	Andes Copper Mining Co.	Electrolytic	N. H. E.	Nassau Smelting & Refining Co., Inc.	Fire Refined High Conductivity
BOLIDEN	Bolidens-Gruvaktiebolag	Electrolytic	A M C O	United States Metals Refining Company	Fire Refined High Conductivity
C. C. R.	Canadian Copper Refiners Ltd. (Montreal)	Electrolytic	R H C		
C de P Peru	Cerro de Pasco Corporation	Electrolytic	Brand or Marks	Producer	Grade
C. C. C.	Chile Copper Company	Electrolytic	B. C. R.	British Copper Refiners, Ltd.	Fire Refined High Conductivity
F E C	Falconbridge Nickel Mines, Ltd.	Electrolytic	N. H. E.	Nassau Smelting & Refining Co., Inc.	Fire Refined High Conductivity
K U E	Kennecott Copper Corp.	Electrolytic	A M C O	United States Metals Refining Company	Fire Refined High Conductivity
L. M. C.	Lewin Metals Corporation	Electrolytic	R H C		
M U F	Mufulira Copper Mines, Ltd.	Electrolytic	Brand or Marks	Producer	Grade
N A	Norddeutsche Affinerie	Electrolytic	B. C. R.	Braden Copper Company	Fire Refined
O R C	Ontario Refining Co., Ltd.	Electrolytic	N. H. E.	Kennebott Copper Corporation	(other than Lake & Fire Refined)
A. L. S.	Philips Dodge Refining Corp. (For Adolph Lewisohn Selling Corp.)	Electrolytic	A M C O	Meissina (Transvaal) Development Co.	Lake
L. N. S.	Philips Dodge Refining Corp.	Electrolytic	R H C	Philips Dodge Corporation	High
P * D	Philips Dodge Corporation	Electrolytic		United States Metals Refining Company	Conductivity
N. E. C.	Raritan Copper Works	Electrolytic	*** (3 Star)		
E C	Rhokana Corporation	Electrolytic	K C M	Braden Copper Company	
B O R	Rudnicki Bakra i Toponice	Electrolytic	M T D	Kennebott Copper Corporation	
U M K	Union Miniere du Haut Katanga	Electrolytic	P. D. M.	Meissina (Transvaal) Development Co.	
D R W	United States Metals Refining Co.	Electrolytic	R	Philips Dodge Corporation	
AMCO	United States Metals Refining Co.	Electrolytic			
OFHC	United States Metals Refining Co.	Electrolytic			
W E K	Zinnwerke Wilhelmsburg G.m.b.H.	Electrolytic			

Subsidiary, The American Metal Co., Ltd.

Official List of Approved Refiners Whose CATHODES are deliverable against Commodity Exchange, Inc., Copper Contract

American Smelting & Refining Co.	Mufulira Copper Mines, Ltd.
Anacinda Copper Mining Co.	Norddeutsche Affinerie
Andes Copper Mining Co.	Ontario Refining Co., Ltd.
Bolidens-Gruvaktiebolag	Philips Dodge Refining Corp.
Canadian Copper Refiners, Ltd.	Raritan Copper Works
Cerro de Pasco Copper Corp.	Rhokana Corporation
Chile Copper Company	Rudnicki Bakra i Toponice
Consolidated Mining & Smelting Co.	Union Miniere du Haut Katanga
Falconbridge Nickel Mines, Ltd.	United States Metals Refining Co.
Kennecott Copper Corp.	Zinnwerke Wilhelmsburg G.m.b.H.
Lewin Metals Corp.	

United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 30, 1957, Under Geneva Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

COPPER

NOTE — The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955, and again until June 30, 1958. If import tax is restored, the 1956 Geneva Agreement provides for 5% reductions effective on June 30 of 1956, 1957 and 1958, provided the price is above 24c; if the price is below 24c the 2c tax would prevail.

Copper ore and concentrates, usable as flux, etc., copper content	free
Copper ore and concentrates, product of Cuba and Philippines, copper content	free
Copper ore and concentrates, copper content	free
Regulus, black, or coarse copper, and cement copper, copper content	free
Unrefined black, blister, and converter copper in pigs or converter bars, copper content	free
Refined copper in ingots, plates or bars, copper content	free
Copper rolls, rods or sheets	1 1/4c lb.
Copper seamless tubes and tubing	3 1/2c lb.
Copper plain wire	12 1/2%
Copper brazed tubing	4.90c lb.
Old and scrap copper, fit only for remanufacture; and scale and clippings, copper content	free

BRASS

Brass rods, sheets, plates, bars, strips, Muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets	2c lb.
Brass tubes and tubing, seamless	2c lb.
Brass tubes, brazed, angles and channels	6c lb.
Brass and bronze wire	12 1/2%

LEAD

NOTE — Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended February 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content	3/4c lb.
Bullion or base bullion, lead content	1 1/16c lb.
Pigs and bars, lead content	1 1/16c lb.
Reclaimed, scrap, dross, lead content	1 1/16c lb.
Babbitt metal and solder, lead content	1 1/16c lb.
Pipe, sheets, shot, glaziers' lead, and wire	1 5/16c lb.
Type metal and antimonial lead, lead content	1 1/16c lb.
White lead	1.05c lb.
Litharge	1 1/4c lb.
Red lead	15/16c lb.
Orange mineral	1c lb.

ZINC

NOTE — Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended February 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content	6/10c lb.
Zinc, old and worn out, fit only for remanufacture	3/4c lb.
Dross and skimmings	3/4c lb.
Zinc in blocks, pigs or slabs	7/10c lb.
Zinc in sheets	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions	1 1/8c lb.

Zinc dust	7/10c lb
Zinc die-casting alloys	12 1/2%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry	3/5c lb.
ground in or mixed with oil or water	1c lb.

MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for	1.30c lb.
Aluminum scrap	free
Aluminum plates, sheets, bars, rods, circles, squares, etc.†	2.70c lb.
Antimony ore, antimony content	free
Antimony metal and regulus	2c lb
Antimony needle or liquitated	1/4c lb
Antimony oxide	1c lb
Antimony sulphides	1/2c lb. & 12 1/2%
Arsenic, metallic†	2.70c lb.
Arsenious acid or white arsenic	free
Bauxite, crude*	free
Bauxite, refined**	1/4c lb.
Bismuth	1 1/2%
Bismuth salts and compounds	35%
Beryllium metal†	22 1/2%
Beryllium ore	free
Cadmium	3 3/4c lb.
Cadmium flue dust, cadmium content	free
Chrome ore or chromite	free
Chrome or chromium metal†	11%
Cobalt metal	free
Cobalt ore and concentrates, cobalt content	free
Magnesium, metallic†	14.30c lb.
Magnesium powder, sheets, wire†	18c lb. & 9 1/2%
Magnesium alloy†	20c & 10%
Magnesium scrap	free
Manganese ores, containing over 10% manganese, manganese content	1/4c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content†	31 1/2c lb.
Nickel ore, matte and oxide	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms	1 1/4c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes	12 1/2%
Nickel scrap	free
Nickel tubes, tubing	6 1/4%
(if cold rolled, drawn or worked — 2 1/2% extra)	
Platinum, grain, nuggets, sponge and scrap, oz. troy	free
Platinum in ingots, bars, sheets, or plates, not less than 1/8 in. thick, oz. troy	free
Platinum, ores, platinum content, oz. troy	free
Quicksilver or mercury	25c lb.
Selenium and salts	free
Tantalum	12 1/2%
Tin ore, cassiterite, and black oxide of tin, tin content	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f.	free
Tungsten ore or concentrates, tungsten content	50c lb.

*Crude bauxite import duty suspended to July 15, 1958. **Under Public Law 25 alumina imported for use in aluminum production is free for entries from July 17, 1956 to July 16, 1958. †Tariff to be reduced 5% on June 30, 1958, under Geneva Agreement which expires on June 30, 1959.

CUSTOM SMELTER COPPER RAISED 1/2c TO 25 1/2c POUND FOLLOWING ANNOUNCEMENT OF PRODUCTION CUTBACKS

Lead Cut 1/2c to 13c in Wake of London Decline; Zinc Unchanged; Tin Displays More Strength; Silver, Platinum, Quicksilver Prices Down

December 17, 1957

THEAILING copper market took a turn for the better at the end of the period in review, reflecting cutbacks in production by Kennecott Copper Corp., Cerro de Pasco Corp., Howe Sound Co. and a reported cutback by Union Miniere du Haut Katanga, the large Belgian producer. Domestic custom smelters increased their electrolytic copper price 0.50c on December 16 to 25.50c a pound, following a fairly sharp rise in the electro quotation on the London market. However, London copper prices, while still above their recent lows, have receded somewhat and it was questionable if the new strength generated by the production cutbacks could be sustained. Primary producers maintained their 27.00c-a-pound delivered quotation established early in September.

The New York lead price declined 0.50c on December 2 to 13.00c a pound. Although the London price again weakened, a further drop in the domestic quotation was resisted. Domestic zinc prices were subjected to similar pressure but the price for the Prime Western grade held steady at 10.00c a pound East St. Louis.

Tin prices displayed a good deal more strength, with spot Straits quoted at 29.875c a pound on December 17 compared with the last previous quotation in this space of 29.875c for November 13.

Although primary aluminum supplies were plentiful, producers maintained their price at 28.10c a pound, f.o.b., for the 30-pound 99 1/2 per cent plus ingot.

Silver fluctuated quite a bit during the month in review, the price having changed seven times from November 12 to December 17, when the New York quotation was established at 89.625c an ounce. Platinum weakened further, to \$77-\$80 an ounce on December 4. Quicksilver also was easier and was available at \$223 to \$230 per flask.

Kennecott Output Cut

Kennecott Copper Corp., the world's largest copper producer, announced that at the beginning of January it will put into effect a cut in output of 12 per cent at its U. S. properties, which will mean a reduction in production of approximately 3,800 tons a month. A company spokesman said that "continued lack of domestic demand for copper" forced the curtailment.

Howe Sound Co. and Cerro de Pasco also announced cutbacks in production. The Howe curtailment is estimated at about 300 tons a month and the Cerro reduction at about 300 to 350 tons, making a combined slash for the two firms of 600 to 650 tons a month.

Union Miniere du Haut Katanga,

the world's fifth largest producer, also was reported to have put into effect a 10 per cent cut in production, or a reduction of about 2,300 tons a month.

Phelps Dodge and Anaconda previously announced production curtailments. The only two prominent producers still to be heard from are Chile and the Anglo-American group of mines in Northern Rhodesia. The Rhodesian Selection Trust in Northern Rhodesia put a 10 per cent cut in effect earlier this year.

Trade circles believed that the Chilean Government, which derives a good portion of its revenue from the tax on copper, will probably agree to an output cut at the Kennecott and Anaconda properties in Chile. There have been conflicting statements from Chilean officials on this matter of curtailment but some positive action now is anticipated. It was pointed out that U. S. mine workers of Kennecott and Anaconda would not take kindly to their cutback in working schedules due to the production curtailments unless similar cutbacks were made at these firms' Chilean properties.

More Copper for Stockpile

In addition to the production curtailments, about 8,500 tons of copper will probably be "put" to the U. S. Government by San Manuel and White Pine which have contracts with the Government. San Manuel's floor price with the Government is 27.05c a pound, and White Pine's about 28.50c.

Between the curtailments in output and the "puts" to the Government, the domestic market supply of copper could be cut about 21,000 tons a month. This drop, however, has been offset by new mines that came into production this year. Concerning "puts" to the Government, in the first 11 months of this year the Government has taken about 70,000 tons of copper for the stockpile whereas in all of 1956 it took only 40,000 tons.

LME Up Sharply

Copper prices at the first call on the London Metal Exchange on December 16 advanced £9 10s from the previous close on the news of the production curtailment. The gain, however, was not maintained at the second call, the price declining £3 10s. At the first call on December 17 the price dipped another £2, to £183 a long ton (equivalent to 22.875c a pound).

Custom Smelter Price Up

The domestic custom smelter 0.50c-a-pound increase on December 16, to 25.50c a pound delivered, was in sympathy with the London rise and the news of the production curtailment. The dip in the LME price later in the day took some of the steam out of the domestic market and consumers were not rushing to buy smelter copper at

25.50c. In the outside market, copper was to be had at concessions without attracting much interest.

Smelters on December 16 also increased their scrap copper buying prices, by 0.25c a pound, to a basis of 19.25c a pound for No. 2 heavy copper and wire scrap. The 19.25c level was about 0.75c a pound less than the price last quoted in this space a month ago.

Consumer buying has not been brisk, which is not unusual at the year-end when users make every effort to keep their inventories at low levels. Fabricators were not too happy over the amount of business they were doing, and one major independent mill, Revere Copper and Brass, found it necessary to cut its copper anode prices 2.50c a pound on December 11, in order to meet competition.

Katanga Price Raised

Union Miniere du Haut Katanga on December 17 raised its copper price to 23.71c a pound, c.i.f. New York or Antwerp; the previous quotation of 22.70c was set on December 12.

The French selling agency, GIRM, increased its price on December 17 to 24.38c a pound f.a.s. New York; the previous price of 23.95c was established on December 12.

November Copper Statistics

Foreign copper production set an all-time new high in November, although the sting of this news was somewhat eased by the production curtailments by Kennecott and Katanga. Crude copper output outside the U. S. in November totaled 165,049 tons as against 162,464 tons in October.

Domestic crude copper output dropped to 97,264 tons in November from 102,107 tons in October. U. S. refined copper statistics for November follow in tons, with the October totals in parentheses: production, 128,371 (129,832); deliveries to domestic fabricators, 106,815 (114,203); stocks in producers' hands end of month, 161,552 (166,976).

Lead, Zinc Output Cut

Bunker Hill Co. announced December 15 it had "temporarily" curtailed production at the lead and zinc mines at Kellogg, Idaho. The cut in operations will result in a 16 per cent reduction in the 31,555 tons of lead produced annually at the company's Bunker Hill mine. Beginning January 1, production at the company's electrolytic zinc plant near Kellogg will be cut, reducing daily output of finished zinc metal by 20 per cent.

The reduction in the domestic lead price which had been anticipated for some time, due to the downward trend for the price of the metal on the LME, materialized on December 2. The New York price was cut 0.50c, to a basis of

13.00c a pound, the lowest level since March 10, 1954.

The more recent uptrend on the LME and the news of curtailment by Bunker Hill had a firming influence on the domestic market but the volume of business left much to be desired.

Zinc Market Steady

Sentiment in the zinc market also was better as a result of the uptrend in the London quotation and on the news of the Bunker Hill curtailment. The LME quotation on December 16, however, was still sufficiently low to permit foreign zinc to be laid down on the U. S. Eastern seaboard at about 9.25c a pound, duty paid, whereas the domestic price is 10.50c New York.

While the volume of domestic business continued light, there was no talk among producers of lowering their prices, which were maintained on the basis of 10.00c a pound East St. Louis for the Prime Western grade.

Trade circles here believed that U. K. lead and zinc prices have been discounted because of the feeling abroad that higher U. S. import duties for these metals are a certainty.

Tin Prices Firmer

Action taken by the International Tin Council at its meeting in London on December 4 and 5 had a firming influence on domestic tin prices. Spot Straits tin at New York on December 17 was 92.875c a pound, up 3.00c from the last quoted price in this space

of 89.875c for November 13. (See London metal review in this issue for further details on Council meeting.)

During the November 13-December 17 period, the high was the 93.50c of December 16 while the low of 87.00c occurred on November 22.

New Era in Aluminum

A new era in the aluminum industry, a "break-through" to mass production techniques, was predicted by Richard S. Reynolds, Jr., president of Reynolds Metals Co. He called the present over-supply of the metal "not a liability but an asset" and forecast a five-fold rise in consumption by 1975 to 10,000,000 tons a year.

Primary aluminum prices were unchanged, on the basis of 28.10c a pound for the 99 1/2 per cent plus 30-pound ingot.

Silver Trend Downward

Silver prices fluctuated during the month in review with the general trend downward, from the last price quoted in this space of 90.375c an ounce on November 12 to 89.625c an ounce on December 17.

The price changes, chronologically, were: on November 22, off 0.125c to 90.25c; on November 26, off 0.25c to 90.00c; on December 5, off 0.25c to 89.75c; on November 6, up 0.25c to 90.00c; on December 13, off 0.125c to 89.875c, and on December 17, off 0.25c to 89.625c an ounce.

Platinum Declines

Major refiners on December 5 re-

duced their platinum prices \$7 an ounce, to \$77 an ounce for bulk quantities and \$80 an ounce for retail lots. It was the first change in the official refiner quotation since July 29, when prices were reduced \$8 an ounce. The December 5 cut reflected a falling off in demand by industry coupled with an increased world supply.

Quicksilver Easy

Spot quicksilver was available in the domestic market at this writing at \$223 to \$230 per flask of 76 pounds, as against \$227 to \$230 quoted on November 6. The lower range became effective November 27. Foreign metal was available at \$223 with domestic quicksilver in the East offered at up to \$230.

Thallium Price Cut

The price of thallium was reduced \$5 a pound on December 11 to \$7.50 a pound. The metal is reported to have been in excess supply.

Zirconium Reduced

The price of high grade zirconium sponge for nuclear reactors was reduced on November 27 to \$7.50 a pound for 1,000-pound lots, with the price of commercial grade sponge cut to \$5 a pound.

Selenium Prices Lowered

A leading producer reduced its prices for common grade and high purity grade of selenium \$3 a pound, effective November 18. The common grade is now \$7.50 a pound and the high purity \$10.50 a pound, delivered.

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NATIONAL BUSINESS PRESS

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Daily Metal Quotations in November, 1957

The following quotations are taken from the Daily Metal Reporter*
(In Cents Per Pound)

	Copper		Tin		Lead		Zinc		Alumi- num		Anti- mony		Silver		
	Straits	New York	Spot	Prompt	New York	Out-side S. & T. Louis	Prime West.	Prime N. Y.	Spec. Brass Spec.	Brass Spec.	Spec. High Grade	Spec. High Grade	30-lb. Ingot 99 1/2% Plus (L. O. b.)	30-lb. Ingot 99 1/2% Plus (L. O. b.)	
1	27.00	25.50	25.85	27.00	24.50	90.00	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10	
2	27.00	25.50	25.85	27.00	24.50	90.00	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10	
4	27.00	25.50	25.85	27.00	24.50	89.625	89.625	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
6	27.00	26.00	26.10	27.00	25.00	89.375	89.375	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
7	27.00	26.00	26.10	27.00	25.00	89.50	89.50	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
8	27.00	26.00	26.10	27.00	24.875	89.50	89.50	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
9	27.00	26.00	26.10	27.00	24.875	89.50	89.50	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
12	27.00	26.00	26.10	27.00	24.875	89.75	89.75	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
13	27.00	25.50	25.85	27.00	24.875	89.875	89.875	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
14	27.00	25.50	25.85	27.00	24.50	89.625	89.625	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
15	27.00	25.50	25.85	27.00	24.50	89.875	89.875	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
16	27.00	25.50	25.85	27.00	24.50	89.875	89.875	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
18	27.00	25.50	25.85	27.00	24.50	89.75	89.75	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
19	27.00	25.50	25.85	27.00	24.50	89.375	89.375	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
20	27.00	25.50	25.85	27.00	24.50	89.00	89.00	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
21	27.00	25.00	25.60	27.00	24.50	88.375	88.375	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
22	27.00	25.00	25.60	27.00	24.00	87.00	87.00	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
23	27.00	25.00	25.60	27.00	24.00	87.00	87.00	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
25	27.00	25.00	25.60	27.00	24.00	87.125	87.125	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
26	27.00	25.00	25.60	27.00	24.00	88.00	88.00	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
27	27.00	25.00	25.60	27.00	24.00	89.375	89.375	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
29	27.00	25.00	25.60	27.00	24.00	91.125	91.125	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
30	27.00	25.00	25.60	27.00	24.00	91.125	91.125	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
AV.	27.00	25.435	25.817	27.00	24.457	89.236	89.236	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
H.I.	27.00	26.00	26.60	27.00	25.00	91.125	91.125	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10
LO.	27.00	25.00	24.60	27.00	24.00	87.00	87.00	13.50	13.30	10.00	10.50	10.25	11.35	11.75	28.10

* When split quotations prevail the daily average price is listed. The highs and lows for the month take into consideration the levels reached at both sides of such ranges.

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British Metal Markets

(Continued from Page 12)

immediate effect on price levels, but subsequently further easiness developed.

Zinc Lacks Confidence

Zinc has continued rather under a cloud in the absence of any development in recent weeks to restore confidence in the outlook.

Although at the U. S. Tariff Commission's hearings in Washington the application for substantially higher duties and import quotas met with quite a bit of opposition, the impression still prevails here that increased duties are likely to be recommended, and this has continued to have a rather depressing effect on open market prices. These have sagged to the lowest level seen since 1953, and are certainly unsatisfactory to the majority of the world's producers.

Presumably this will, in turn, further restrict output, but unfortunately with an unsatisfactory level of demand in the U. S. A. and the prospect of U. S. stockpile purchases coming to an end fairly early in 1958, the global situation still looks a little topheavy. Consumers, in consequence, are only inclined to cover their bare minimum requirements.

The brass trade here is feeling a

little happier now that the motor car industry is operating at a record rate, but since it consumed nearly 8,000 tons less zinc in the first nine months of the year than in the same period of 1956, it is very doubtful whether it will make up this amount of leeway. Overall, however, in the first three-quarters of the year total U. K. consumption was only down about 2,500 tons and both galvanizing and die casting showed some gain over last year.

Washington Report

(Continued from Page 5)

will parallel its rapid expansion in the eleven years since World War II.

Scrap Metal Yield

About a fifth of all the iron, steel, copper and aluminum metal that goes into America's metalworking factories comes out of scrap, according to a report released November 21 by the Business and Defense Services Administration. The report, "Industrial Scrap Generation," the first detailed study ever made on the subject, was based on a nationwide survey of manufacturers in the various metalworking industries.

Titanium Industry

Cutbacks in aircraft production present a continuing problem for pro-

ducers and fabricators of titanium, the BDSA reported December 6. Production of mill products has slumped from 2,248 tons in the 1957 first quarter to 1,105 tons in the 1957 third quarter, and the trend still is down.

Mercury Sales to Gov't

The General Services Administration extended from December 31, 1957, to March 31, 1958, the delivery deadline for shipments under the Government's current domestic and Mexican quicksilver purchase program. Under the domestic program ending December 31, 1957, the GSA can acquire up to 125,000 flasks. The program has been extended for another year, until December 31, 1958, but the GSA is authorized to purchase only 30,000 flasks. Domestic producers had been seeking to expedite sales to the Government under the 1957 quota but they encountered difficulty in meeting Government specifications concerning the flasks in which the quicksilver is to be packed.

In view of the timing problem caused by the shortage of proper flasks, the GSA will permit delivery of quicksilver on which tenders were made on or before December 31, 1957, to be made no later than March 31, 1958, if such tenders certify the metal is physically available for delivery except for the packaging requirements.

Lead Brands

Producer

Refined At
Federal, Ill., U. S.
Carteret, N. J., U. S.
Monterrey, Mexico
Port Pirie, Australia
Indianapolis, Ind., U. S.

Braubach a/Rhein, Germany

Idaho, U. S.
Orya, Peru
Collinsville, Ill., U. S.

Monterrey, N. L., Mexico
Alton, Ill., U. S.
Oker, Germany
Joplin, Mo., U. S.
Kamioka, Japan
Stolberg, Rhineland, Germany
Federal, Ill., U. S.
Chicago, Ill., U. S.
Hoboken, Belgium
Alton, Ill., U. S.
Omaha, Neb., U. S.
Monsanto, Ill., U. S.
Montepoli, Italy
San Gavino Monreale, Sardinia, Italy
Hammond, Ind., U. S.

Omaha, Neb., U. S.
Overpelt, Belgium

Megrine, Tunis
Penarroya, Sopwith & Cartagena, Spain
Perth Amboy, N. J., U. S.
Genoa, Italy
Alton, Ill., U. S.
Collinsville, Ill., U. S.
Selby, Calif., U. S.
Trail, B. C., Canada
Baelen-Usines, Belgium

Mexico, Yugoslavia
Perth Amboy, N. J., U. S.
Hoboken, Belgium
Midvale, Utah, U. S.
E. Chicago, Ind., U. S.
Norfolk, Va., U. S.
Staten Island, N. Y., U. S. A.
Newark, N. J., U. S. A.
Philadelphia, Pa., U. S. A.

*Deliverable against Commodity Exchange, Inc., Lead Contracts without Certificate of Assay.

**Subsidiary of the American Metal Co., Ltd.

†Deliverable against Commodity Exchange, Inc., Lead Contracts with Certificate of Assay of one of the Official Assayers of the Exchange.

‡Subsidiary of National Lead Co.

Brand Mark

*ALTON
*A M CO
*ASARCO MONTERREY
*B.H.A.S.
†BLUE ARROW AMERICAN
LEAD CORP
*Braubach dopp.
raff. Deutschland
*BUNKER "C" HILL
*CERRO PERU
†CHEMICAL
ST. L S. & R. CO.
**C.M.F. & A.M.
*DOE RUN
*HARZ 99.985, HARZ 99.9
*EAGLE-PICHER
*E.M.K.
*Eschweiler raffine
*FEDERAL
†G B
*H.E.R. Escaut
*HERCULANEUM
*ILP
†MONSANTO
*Montepoli
*Montevecchio

†M R CO METALS REFINING CO.

*OMAHA & GRANT
*Overpelt extra-raffine
O.V.-L.L.-Dur.
*Penarroya
*Penarroya

*PERTH AMBOY
*Pertusola
*ST. JOE
†ST. L. S. & R. CO.
*SELBY
*TADANAC
*Three Stars
Vieille-Montagne Bar
*TRECA
*TSUMCO
*Tsumco
*USS CO
*U S S CO ELECTRO
*VIRGINIA
Nassau Blue
Hudson
Schuykill

Copper Statistics Reported by Copper Institute

Combined Totals in U. S. A. and Outside U. S. A.

	Crude Production		(In tons of 2,000 pounds)			Stock Increases or Decreases		
	Primary	Secondary	Refined Production	Deliveries to Refined Stock		Blister	Refined	Total
				Customers	End of Period			
1955 Total	2,613,662	133,065	2,728,309	2,744,391	221,331	+18,418	-8,552	+11,112
1956								
Nov.	249,360	10,204	254,377	239,181	345,181	+ 5,187	+11,229	+16,416
Dec.	236,512	13,124	250,173	237,003	354,420	- 537	+ 9,239	+ 8,702
Total	2,862,839	152,536	2,987,060	2,830,407	354,420	+28,415	+133,089	+161,402
1957								
Jan.	240,790	15,514	256,729	263,014	344,972	- 245	- 9,448	- 9,693
Feb.	235,679	10,577	242,952	214,796	370,128	+ 3,304	+ 25,156	+ 28,460
Mar.	244,407	11,650	264,649	263,271	369,256	- 8,392	- 872	- 9,264
Apr.	234,909	12,369	252,857	253,295	363,463	- 5,579	- 5,793	- 11,372
May	249,564	10,456	275,323	256,379	376,761	-15,303	+ 13,298	- 2,005
June	252,249	9,671	251,802	220,052	402,294	+ 10,119	+ 23,533	+ 33,652
July	224,304	7,403	239,365	204,035	430,301	- 7,658	+ 30,007	+ 22,349
Aug.	226,891	9,665	231,669	231,300	424,612	+ 5,187	- 5,811	- 624
Sept.	234,981	7,562	226,737	225,038	418,929	+ 14,621	- 5,683	+ 8,938
Oct.	254,845	9,726	266,938	246,290	427,991	- 2,733	+ 9,062	+ 6,329
Nov.	253,675	8,638	258,242	255,495	425,678	+ 4,071	- 2,313	+ 1,758
In U. S. A.								
1955 Total	1,036,702	124,760	1,467,448	1,446,354	61,554	.....	+ 14,446	.....
1956								
Nov.	90,573	8,940	132,970	114,524	116,516	.....	+ 10,396	.....
Dec.	92,231	12,352	129,839	99,594	120,645	.....	+ 4,129	.....
Total	1,133,134	139,584	1,580,287	1,465,899	120,645	.....	+ 50,091	.....
1957								
Jan.	94,783	14,683	139,150	119,925	118,564	.....	- 2,081	.....
Feb.	92,508	8,941	134,291	101,565	136,502	.....	+ 17,938	.....
Mar.	96,363	10,355	143,961	113,571	140,191	.....	+ 3,689	.....
Apr.	98,910	11,160	144,013	116,716	139,842	.....	- 349	.....
May	96,334	9,618	151,045	120,336	155,365	.....	+ 15,523	.....
June	95,893	8,792	134,270	101,993	165,549	.....	+ 10,184	.....
July	86,141	6,386	127,434	84,702	191,515	.....	+ 25,966	.....
Aug.	89,680	9,246	128,480	107,522	192,931	.....	+ 1,416	.....
Sept.	87,260	6,925	117,078	102,925	176,813	.....	- 16,118	.....
Oct.	93,078	9,029	129,832	114,203	166,976	.....	- 9,837	.....
Nov.	89,253	8,011	128,371	106,815	161,552	.....	- 5,424	.....
Outside U. S. A.*								
1955 Total	1,576,960	8,305	1,260,861	1,298,037	159,777	.....	- 21,752	.....
1956								
Oct.	160,333	1,303	127,373	120,727	227,832	.....	+ 11,683	.....
Nov.	158,787	1,264	121,407	124,657	228,665	.....	+ 833	.....
Dec.	144,281	772	120,334	137,409	233,775	.....	+ 5,110	.....
Total	1,729,705	12,952	1,406,773	1,364,508	233,775	.....	+ 73,998	.....
1957								
Jan.	146,097	831	117,579	143,089	226,408	.....	- 7,367	.....
Feb.	143,171	1,636	108,661	113,231	233,626	.....	+ 7,218	.....
Mar.	148,044	1,495	120,688	149,700	229,065	.....	- 4,561	.....
Apr.	135,999	1,209	108,844	136,579	223,621	.....	- 5,444	.....
May	153,230	838	124,278	136,043	221,396	.....	- 2,220	.....
June	156,356	879	117,531	118,059	234,745	.....	+ 13,349	.....
July	138,163	1,017	111,931	119,333	238,786	.....	+ 4,041	.....
Aug.	137,211	719	103,189	123,778	231,681	.....	- 7,227	.....
Sept.	147,711	637	110,659	122,113	242,116	.....	+ 10,435	.....
Oct.	161,767	697	137,106	132,087	261,015	.....	+ 18,899	.....
Nov.	164,422	627	129,871	148,680	264,126	.....	+ 3,111	.....

* Excluding Russia, Yugoslavia, Norway, Sweden, Japan and Australia.

Electrolytic Copper Producers' Price, Del. Valley Monthly Average Prices (Cents Per Pound)

	1954	1955	1956	1957
Jan.	29.88	30.24	43.00	36.00
Feb.	29.88	33.00	44.03	33.318
Mar.	29.93	33.222	46.00	32.00
Apr.	29.98	36.00	46.00	32.00
May	30.00	36.00	46.00	32.00
June	30.00	36.00	46.00	30.955
July	30.00	36.00	41.56	29.25
Aug.	30.00	37.81	40.00	28.639
Sept.	30.00	43.00	40.00	27.031
Oct.	30.00	43.00	39.308	27.00
Nov.	30.00	43.00	36.00	27.00
Dec.	30.00	43.00	36.00	....
Ave.	29.27	37.522	41.992	....

Electrolytic Copper Custom Smelters' Price, Del. Valley Monthly Average Prices (Cents Per Pound)

	1954	1955	1956	1957
Jan.	29.75	30.48	50.22	34.87
Feb.	29.75	33.00	52.07	32.273
Mar.	29.866	33.667	53.11	30.952
Apr.	29.965	36.00	48.88	31.24
May	30.00	36.00	44.221	30.163
June	30.00	36.00	40.00	29.60
July	30.00	36.00	38.14	28.39
Aug.	30.00	40.14	39.32	27.862
Sept.	30.00	50.00	39.00	25.948
Oct.	30.00	45.99	37.192	25.722
Nov.	30.00	45.84	35.96	25.435
Dec.	30.00	49.42	35.45	....
Aver.	29.944	39.38	42.797	....

Lake Copper Producers' Price Delivered Monthly Average Prices (Cents Per Pound)

	1954	1955	1956	1957
Jan.	30.00	30.12	43.00	36.00
Feb.	30.00	33.00	43.783	33.182
Mar.	30.00	33.56	46.00	32.00
Apr.	30.00	36.00	46.00	32.00
May	30.00	36.00	46.00	32.00
June	30.00	36.00	46.00	30.90
July	30.00	36.00	41.68	29.25
Aug.	30.00	37.46	40.00	28.611
Sept.	30.00	43.00	40.00	27.00
Oct.	30.00	43.00	39.321	27.00
Nov.	30.00	43.00	36.00	27.00
Dec.	30.00	43.00	36.00	....
Aver.	30.00	37.51	41.975	....

Fabricators' Copper Statistics

(In tons of 2,000 pounds)

Fabricators' Stocks of Refined Copper	Unfilled Purchases of Refined Copper by Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consumed by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.	1953	1954	1955	1956	
1951						Ttl.	38,900	2,374	885,174	
Total	280,402	32,147	295,385	303,050	1,391,477				926,448	
1952					—285,886	Ttl.	40,302	1,925	793,241	
Total	331,499	32,652	292,157	275,608	1,391,477				835,472	
1953					—203,614	Ttl.	68,622	2,140	921,838	
Total	380,881	25,022	309,664	170,917	1,375,869				992,600	
1954					— 74,678	May	6,960	191	92,531	
Total	360,526	58,125	304,619	136,581	1,231,840	June	6,720	173	88,049	
1955					— 22,549	July	6,132	185	74,283	
May	327,343	111,715	309,219	323,279	113,801	Aug.	6,638	219	85,224	
June	327,696	126,703	309,972	234,578	133,386	Sept.	6,195	163	78,934	
July	312,587	165,505	301,048	286,095	75,846	Oct.	6,405	183	87,102	
Aug.	304,097	150,854	303,089	283,653	98,856	Nov.	6,498	150	81,984	
Sept.	334,996	133,391	314,111	270,102	114,647	Dec.	6,603	150	80,452	
Oct.	353,469	135,075	313,048	275,255	116,351	Ttl.	79,681	2,130	1,018,496	
Nov.	373,314	139,855	313,779	283,953	123,355				1,100,307	
Dec.	389,974	139,094	314,145	293,264	127,715	1957				
Total	.....	.....	.....	.....	1,418,241	Jan.	6,607	172	86,431
1956						Feb.	6,082	163	84,011	
Jan.	376,753	143,815	312,128	305,942	138,600	Mar.	6,714	196	88,257	
Feb.	388,823	135,637	319,279	282,314	130,973	Apr.	6,579	237	86,627	
Mar.	392,143	140,348	319,056	291,465	133,609	May	7,198	200	93,274	
Apr.	413,979	135,071	319,247	266,239	121,961	June	7,793	129	82,398	
May	435,083	131,023	318,592	249,352	124,727	July	6,101	154	78,502	
June	451,126	114,223	324,970	227,097	113,835	Aug.	7,572	133	79,892	
July	465,015	109,040	334,584	220,810	81,275	Sept.	6,083	132	79,623	
Aug.	457,679	115,295	338,818	221,975	117,427				85,338	
Sept.	445,679	114,981	338,488	204,154	115,867	1958				
Oct.	440,706	112,893	336,856	198,517	119,440	Average	37.035	35.535	33.59	32.70
Nov.	435,216	110,792	335,829	178,814	119,441	Custom Smelters' Scrap Buying Prices				
Dec.	437,187	117,601	336,217	183,834	99,223	(Cents per pound for carload lots del. consumers' works)				
Total	1,416,378	No. 1 Copper Scrap	33.59	32.70		
1957						No. 2 Copper Scrap	35.535	32.70		
Jan.	435,635	107,231	335,944	178,326	119,517	Light Copper Scrap	29.81	29.92		
Feb.	422,266	110,174	334,542	178,913	114,298	Refiner's Brass	27.214	27.44		
Mar.	429,410	104,551	338,454	164,623	106,170					
Apr.	429,708	98,638	335,921	164,410	117,041	1955				
May	434,852	92,943	336,697	170,476	115,355	1956				
June	426,905	82,919	340,743	153,042	110,527	1957				
July	432,918	85,728	341,684	144,410	77,991	Average	33.56	32.06	29.81	29.92
Aug.	429,627	82,768	344,315	144,375	110,323	Custom Smelters' Scrap Buying Prices				
Sept.	425,168	80,436	344,530	144,538	106,927	(Cents per pound for carload lots del. consumers' works)				
Oct.	420,130	80,774	341,869	138,420	119,161	No. 1 Copper Scrap	25.55	26.30		
						No. 2 Copper Scrap	27.80	27.27		
						Light Copper Scrap	22.72	23.75		
						Refiner's Brass	22.35	23.75		

Scrap Copper Receipts by Custom Smelters and Refineries in United States*

(In Short Tons)

1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Jan. 10,172	17,084	15,763	6,640	4,528	6,486	9,859	11,047	14,322	17,506
Feb. 11,890	20,238	12,500	5,153	3,633	10,337	8,490	12,198	14,497	11,145
Mar. 11,954	20,678	13,538	7,912	5,243	19,991	9,738	12,198	15,921	13,934
Apr. 15,125	15,968	12,304	8,553	6,214	16,583	9,004	13,162	17,233	14,288
May. 16,357	14,237	8,749	8,458	8,033	10,857	8,657	15,133	20,805	12,397
June. 11,178	8,809	20,523	8,628	4,425	10,945	13,399	14,765	14,758	11,949
July. 8,370	7,782	10,040	6,642	5,188	9,063	10,60	9,988	12,632	8,926
Aug. 17,081	8,246	10,452	6,113	5,003	7,137	10,100	12,197	12,510	11,645
Sept. 16,001	9,980	4,903	3,561	4,667	9,042	10,641	15,037	9,518	9,756
Oct. 10,854	6,401	9,459	3,336	4,602	10,065	11,662	12,897	15,570	13,151
Nov. 7,625	15,347	9,237	3,179	4,724	7,815	10,879	9,865	11,369	11,146
Dec. 11,826	10,533	7,178	4,538	6,208	11,476	14,876	13,180	14,613	...
Total 147,931	156,303	142,067	71,812	62,470	129,798	127,449	154,714	173,748	...

* As compiled by Copper Institute.

Brass and Bronze Ingot Monthly Shipments (Net Tons)

1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Jan. 27,841	26,998	19,456	18,874	28,415	28,315	24,423	20,661	25,201	27,736	25,681
Feb. 24,686	22,487	15,026	18,487	27,168	24,211	25,429	19,920	25,349	24,949	20,769
Mar. 17,477	24,282	14,550	22,494	31,997	23,890	28,256	23,653	29,713	28,310	21,948
Apr. 24,577	25,177	10,695	22,118	30,472	22,547	25,044	24,746	27,641	25,808	23,507
May. 19,526	23,716	11,114	23,643	33,267	21,740	21,660	22,269	23,708	23,437	22,037
June. 16,929	24,401	9,696	25,093	33,817	21,274	20,818	22,348	23,141	18,842	18,888
July. 16,728	20,456	10,220	21,609	32,016	18,947	19,321	17,074	18,513	17,364	16,695
Aug. 18,589	24,098	14,194	26,689	25,285	21,867	20,156	21,684	27,018	23,812	19,654
Sept. 19,023	23,641	16,206	28,811	22,282	22,770	21,463	22,464	26,349	20,929	19,670
Oct. 22,806	21,559	18,026	32,240	23,124	25,811	22,280	24,080	25,228	23,045	...
Nov. 21,668	21,731	18,488	31,748	23,544	23,441	21,860	23,061	25,102	21,818	...
Dec. 23,862	20,954	17,960	28,575	20,987	22,983	20,541	21,274	21,448	18,046	...
Total 263,711	279,500	175,643	303,563	332,378	277,736	271,251	263,233	298,406	274,096	...
Avg. 21,976	23,292	14,637	25,297	27,615	23,145	22,604	21,936	24,867	22,841	...

Mine Production of Copper in United States

	(U. S. Bureau of Mines) (In short tons)		
	Eastern	Missouri	Western
1953	38,900	2,374	885,174
1954	40,302	1,925	793,241
1955	68,622	2,140	921,838
1956	6,960	191	92,531
1957	6,720	173	88,049
1958	6,132	185	80,600
1959	6,638	219	85,224
1960	6,405	183	87,102
1961	6,498	150	81,984
1962	6,603	150	80,452
1963	6,405	183	87,205
1964	6,498	150	88,632
1965	6,638	219	92,067
1966	6,405	183	87,102
1967	6,498	150	89,600
1968	6,638	219	93,690
1969	6,405	183	87,102
1970	6,498	150	88,632
1971	6,638	219	93,690
1972	6,405	183	87,102
1973	6,498	150	88,632
1974	6,638	219	93,690
1975	6,405	183	87,102
1976	6,498	150	88,632
1977	6,638	219	93,690
1978	6,405	183	87,102
1979	6,498	150	88,632
1980	6,638	219	93,690
1981	6,405	183	87,102
1982	6,498	150	88,632
1983	6,638	219	93,690
1984	6,405	183	87,102
1985	6,498	150	88,632
1986	6,638	219	93,690
1987	6,405	183	87,102
1988	6,498	150	88,632
1989	6,638	219	93,690
1990	6,405	183	87,102
1991	6,498	150	88,632
1992	6,638	219	93,690
1993	6,405	183	87,102
1994	6,498	150	88,632
1995	6,638	219	93,690
1996	6,405	183	87,102
1997	6,498	150	88,632
1998	6,638	219	93,690
1999	6,405	183	87,102
2000	6,498	150	88,632
2001	6,638	219	93,690
2002	6,405	183	87,102
2003	6,498	150	88,632
2004	6,638	219	93,690
2005	6,405	183	87,102
2006	6,498	150	88,632
2007	6,638	219	93,690
2008	6,405	183	87,102
2009	6,498	150	88,632
2010	6,638	219	93,690
2011	6,405	183	87,102
2012	6,498	150	88,632
2013	6,638	219	93,690
2014	6,405	183	

United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	Stock At Beginning	Production Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1953	43,560	533,883	577,443	81,152	488,437
1954	81,152	551,618	632,770	92,719	475,551
1955	28,855	547,153	639,872	31,089	531,339
1956					
January	31,089	51,306	82,395	32,469	49,746
February	32,469	49,475	81,944	41,450	39,411
March	41,450	54,174	95,624	52,089	39,344
April	53,089	52,976	105,065	53,958	44,986
May	53,958	47,961	101,919	50,460	40,703
June	50,460	47,867	97,827	45,951	41,458
July	45,951	48,479	94,430	49,134	36,483
August	49,134	48,404	97,538	39,304	48,404
September	39,304	53,530	92,834	40,542	47,519
October	40,542	54,815	95,357	42,314	45,254
November	42,314	50,744	93,058	37,192	47,349
December	37,192	54,063	91,254	41,181	44,191
Total	...	613,293	644,382	...	529,484
1957					
January	41,181	50,854	92,035	42,905	40,549
February	42,905	48,102	90,917	48,699	37,517
March	48,699	52,357	101,056	46,184	38,225
April	46,184	56,170	102,354	57,444	37,583
May	57,444	51,718	109,162	58,085	35,334
June	58,085	48,203	106,288	64,861	37,257
July	64,861	47,100	111,961	68,009	38,582
August	68,009	48,191	116,200	60,633	49,406
September	60,633	50,436	111,069	54,682	51,859
October	54,682	52,041	106,723	59,041	40,447

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

Industrial Classification of Domestic Lead Shipments

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Cable	Amm.	Foil	Batt'y	Brass Making	Sun-dries	Jobbers	Unclassified
1952	74,616	30,809	1,374	77,238	5,160	50,943	5,671	246,283
1953	76,283	34,415	2,136	80,339	5,716	55,936	6,390	227,222
1954	75,412	30,246	2,811	66,088	5,192	57,369	9,170	229,264
1955								
Apr.	5,909	2,625	201	6,533	463	5,178	1,234	22,735
May	6,145	2,950	251	8,127	321	4,435	1,145	22,756
June	6,623	950	50	6,833	290	5,175	1,293	23,816
July	2,313	150	307	4,365	100	3,763	946	14,603
Aug.	5,772	2,800	210	4,794	290	3,741	1,230	22,632
Sept.	6,552	2,295	415	7,794	354	4,711	1,149	22,980
Oct.	6,772	3,026	85	9,819	564	4,899	1,287	25,610
Nov.	6,606	2,433	70	18,875	387	3,795	874	23,330
Dec.	6,275	3,260	35	7,508	449	4,289	839	25,516
Total	72,418	27,599	2,622	88,461	3,960	52,994	18,034	270,251
1956								
Jan.	7,777	3,075	200	6,555	290	8,538	917	22,394
Feb.	5,974	2,435	384	5,983	275	3,592	871	19,897
Mar.	6,786	1,300	101	4,903	321	3,915	1,331	20,687
Apr.	6,744	2,950	310	4,839	260	3,522	1,376	24,985
May	6,490	2,825	...	5,027	131	3,513	964	21,753
June	8,502	2,150	...	4,167	186	3,645	1,021	21,787
July	3,497	904	...	5,007	80	2,859	1,453	22,683
Aug.	7,712	1,497	85	6,334	713	4,443	1,262	26,358
Sept.	6,354	1,850	135	6,303	230	5,038	1,339	26,270
Oct.	7,988	1,715	135	7,108	286	4,955	1,493	21,574
Nov.	6,096	2,351	...	8,556	226	5,573	792	23,755
Dec.	6,440	1,449	85	5,832	160	7,258	394	22,573
Total	80,360	24,501	1,435	70,614	3,158	56,851	13,213	274,716
1957								
Jan.	5,297	2,800	200	6,886	671	4,002	1,191	19,502
Feb.	5,103	1,450	350	6,549	508	4,820	625	18,112
Mar.	5,956	752	...	6,479	686	4,614	1,064	18,674
April	6,731	2,250	...	6,242	909	2,958	1,040	17,453
May	6,976	2,200	120	4,705	270	3,871	634	16,558
June	3,726	2,250	75	3,762	666	5,071	1,087	20,620
July	5,249	1,650	105	5,332	566	5,310	1,110	19,260
Aug.	5,406	2,250	220	6,165	650	6,246	1,403	27,066
Sept.	4,880	2,700	295	6,722	850	5,782	891	29,739
Oct.	3,671	3,300	205	5,973	881	4,203	847	21,367

Lead Prices at New York

(Common Grade)

Monthly Average Prices (Cents per pound)

	1954	1955	1956	1957
Jan.	13.26	15.00	16.16	16.00
Feb.	12.82	15.00	16.00	16.00
Mar.	12.94	15.00	16.00	16.00
Apr.	13.91	15.00	16.00	16.00
May	14.00	15.00	16.00	15.385
June	14.11	15.00	16.00	14.32
July	14.00	15.00	16.00	14.00
Aug.	14.06	15.00	16.00	14.00
Sept.	14.60	15.12	16.00	14.00
Oct.	14.975	15.50	16.00	13.704
Nov.	15.00	15.50	16.00	13.50
Dec.	15.00	15.56	16.00	...
Av.	14.06	15.14	16.013	...

Lead Sheet Prices

(To Jobbers, Full Sheets)

Monthly Average Prices (Cents per pound)

	1954	1955	1956	1957
Jan.	18.26	20.00	21.66	21.50
Feb.	17.82	20.00	21.50	21.50
Mar.	17.94	20.00	21.50	21.50
Apr.	18.91	20.00	21.50	21.50
May	19.00	20.00	21.50	20.885
June	19.11	20.00	21.50	19.82
July	19.00	20.00	21.50	19.50
Aug.	19.06	20.00	21.50	19.50
Sept.	19.60	20.12	21.50	19.50
Oct.	19.975	20.50	21.50	19.204
Nov.	20.00	20.50	21.50	19.00
Dec.	20.00	20.56	21.50	...

Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers:

(In thousands of units)

	1954	1955	1956	1957
Jan.	1,836	1,518	2,058	2,638
Feb.	1,461	1,691	1,340	1,960
Mar.	1,226	1,356	1,348	1,254
Apr.	1,180	1,315	1,368	1,178
May	1,429	1,614	1,761	1,604
June	1,883	1,842	1,807	1,878
July	2,350	2,078	2,178	2,469
Aug.	2,548	2,852	2,571	2,855
Sept.	2,800	3,120	2,711	2,692
Oct.	2,739	3,120	3,015	...
Nov.	2,475	2,697	2,592	...
Dec.	1,844	2,625	2,265	...
Total	23,771	25,828	25,014	...

METALS, DECEMBER, 1957

Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)

In ore and matte and in process at smelters	(In tons of 2,000 lbs.)						Total Stocks
	— In base bullion (lead content) —						
	At smelters & refineries	In transit to refineries	In process at refineries	Refined pig lead	Antimoni- al lead		
1955							
Oct. 1	70,628	19,083	4,217	28,424	23,292	7,461	153,105
Nov. 1	71,257	20,632	4,276	28,596	21,828	8,085	154,724
Dec. 1	64,109	20,232	4,377	27,486	19,592	9,263	145,059
1956							
Jan. 1	71,812	16,532	3,764	27,625	21,196	9,893	150,822
Feb. 1	70,690	19,082	1,764	25,632	24,080	8,389	149,637
Mar. 1	71,023	16,406	2,583	27,519	32,355	9,095	158,981
Apr. 1	72,358	15,655	2,152	28,065	41,800	10,289	170,319
May 1	74,837	15,500	2,718	24,181	43,268	10,690	171,194
June 1	78,987	15,477	2,475	26,682	39,558	10,902	174,081
July 1	81,796	15,837	4,423	28,505	36,499	9,452	176,612
Aug. 1	76,985	16,856	3,516	29,603	38,210	10,924	176,094
Sept. 1	81,634	18,529	2,874	29,991	29,230	10,074	172,332
Oct. 1	77,787	15,991	4,413	28,083	29,361	11,181	166,816
Nov. 1	78,253	12,022	3,083	25,783	30,932	11,382	161,485
Dec. 1	82,197	9,095	4,132	25,627	25,360	11,832	158,243
1957							
Jan. 1	77,918	12,222	2,846	25,092	29,435	11,746	159,249
Feb. 1	80,451	10,636	4,061	25,827	32,418	10,487	163,880
Mar. 1	81,274	11,880	4,394	25,728	38,479	10,220	171,975
Apr. 1	82,461	14,598	3,593	25,401	36,390	9,794	172,237
May 1	81,061	17,035	2,705	20,890	48,053	9,391	179,135
June 1	81,364	11,585	3,071	21,002	48,286	9,799	175,107
July 1	82,730	12,036	3,560	22,380	55,358	9,503	185,567
Aug. 1	97,111	11,479	2,532	22,917	59,348	8,661	202,048
Sept. 1	84,205	13,029	2,667	22,439	51,080	9,553	182,973
Oct. 1	80,662	11,905	3,175	20,351	44,467	10,215	170,775
Nov. 1	76,230	14,220	2,538	18,695	47,460	11,581	170,724

N. Y. Lead Price Changes

(Effective Date)

1949	Mar. 4...13.90
Nov. 16...12.50	Mar. 10...13.50
Nov. 21...12.00	Apr. 7...13.00
1950	Apr. 16...12.50
Mar. 9...11.00	Apr. 21...12.00
Mar. 14...10.50	Apr. 29...12.50
Apr. 20...10.75	May 18...12.75
Apr. 26...11.00	May 19...13.00
May 4...11.25	May 26...13.15
May 10...11.50	June 11...13.50
May 11...12.00	July 20...13.75
June 23...11.50	July 23...14.00
1951	Sept. 16...13.50
June 28...11.00	1954
July 12...11.50	Jan. 18...13.00
July 13...12.00	Feb. 18...12.50
Aug. 15...13.00	Mar. 9...12.75
Aug. 21...14.00	Mar. 10...13.00
Sept. 1...15.00	Mar. 26...13.25
Sept. 8...16.00	Mar. 29...13.50
Oct. 2...19.00	Apr. 1...13.75
Oct. 31...17.00	Apr. 12...14.00
1952	June 2...14.25
Apr. 29...18.00	June 15...14.00
May 2...17.00	Aug. 25...14.25
May 12...15.00	Sept. 7...14.50
June 23...15.50	Sept. 15...14.75
June 24...16.00	Oct. 4...14.875
Oct. 7...15.00	Oct. 5...15.00
Oct. 14...14.00	1955
Oct. 22...13.50	Sept. 23...15.00
Nov. 3...14.00	15.50
Nov. 10...14.20	Sept. 26...15.50
Nov. 11...14.50	Dec. 29...16.00
Nov. 20...14.25	1956
Nov. 24...14.00	Jan. 4...16.50
Dec. 22...14.25	Jan. 13...16.00
Dec. 29...14.50	1957
Dec. 31...14.75	May 9...15.50
1953	May 16...15.00
Jan. 7...14.50	June 11...14.00
Jan. 12...14.00	Oct. 14...13.50
Feb. 2...13.50	Dec. 2...13.00

**OPS Ceiling.

Antimonial Lead Stocks at Primary Refineries

(A.B.M.S.)

Receipts of lead in ore	Total receipts of lead	(In tons of 2,000 lbs.)			
United States	Foreign	Total			
1952 Total	405,990	98,276	504,266	41,845	546,111
1953 Total	351,183	155,788	506,971	42,994	549,965
1954 Total	336,291	158,081	494,372	49,864	544,236
1955					
October	30,073	20,845	50,918	5,655	56,573
November	27,736	13,022	40,758	3,802	44,560
December	29,363	24,136	53,499	3,150	56,649
Total	341,595	172,966	514,561	42,996	557,557
1956					
January	27,184	15,704	42,888	6,346	49,234
February	28,569	16,528	45,097	4,577	49,674
March	31,568	17,904	49,472	3,989	53,461
April	31,786	15,224	47,010	4,252	51,262
May	32,715	18,476	51,191	4,711	55,902
June	31,546	16,251	47,797	4,541	52,338
July	29,964	13,476	43,440	3,207	46,647
August	31,112	20,726	51,838	5,885	57,723
September	28,731	16,276	45,007	3,351	48,358
October	33,614	12,350	45,964	5,439	51,403
November	30,553	14,308	44,861	5,141	50,002
December	31,154	15,095	46,252	4,536	50,788
Total	368,499	192,318	560,817	55,925	616,792
1957					
January	30,632	19,961	50,593	4,471	55,064
February	31,410	15,059	46,469	4,564	51,033
March	33,445	18,813	52,258	3,058	55,316
April	31,343	13,042	44,385	2,848	47,233
May	32,138	12,324	44,462	3,431	47,893
June	29,896	19,592	49,488	2,272	51,760
July	29,585	17,936	47,521	2,893	50,414
August	29,225	18,774	47,999	3,190	51,189
September	26,479	13,757	40,236	4,375	44,611
October	29,342	13,782	43,124	4,386	47,510

Antimonial Lead Production by Primary Refineries	(A.B.M.S.)	(In tons of 2,000 lbs.)
End of:	1954	1955
Jan.	3,768	4,529
Feb.	4,257	4,777
Mar.	4,475	6,202
Apr.	4,470	5,343
May	4,373	4,737
June	3,796	4,792
July	5,991	1,153
Aug.	6,455	2,946
Sept.	5,869	6,650
Oct.	5,532	8,016
Nov.	5,364	7,985
Dec.	5,255	6,907
Total	59,875	64,037
	66,180	....

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) Inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

U. S. Lead Consumption

(Bureau of Mines — In Short Tons)			
	Jan.-Sept.	Aug.	Sept.
Metal products:	1957		
Ammunition	32,271	2,602	3,964
Bearing metals	18,936	2,370	2,442
Brass and bronze	18,094	2,101	2,217
Cable covering	88,752	9,592	8,268
Calking lead	48,326	5,822	5,784
Casting metals	9,039	844	746
Collapsible tubes	6,736	775	779
Foil	3,777	683	479
Pipes, traps & bends	17,719	2,171	2,010
Sheet lead	19,793	2,285	2,383
Solder	53,757	6,353	5,964
Storage battery			
grids, posts, etc.	134,784	17,003	14,628
Storage battery			
oxides	134,676	17,760	15,344
Terne metal	927	52	164
Type Metal	19,010	2,183	2,135
Total	606,597	72,596	67,307
Pigments:			
White lead	12,738	1,794	1,764
Red lead & litharge	58,919	6,874	6,647
Pigment colors	9,842	1,261	869
Other*	4,605	540	641
Total	86,104	10,469	9,921
Chemicals:			
Tetraethyl lead	128,305	15,056	14,014
Misc. chemicals	2,533	232	247
Total	130,838	15,288	14,261
Misc. uses:			
Annealing	3,497	371	412
Galvanizing	883	70	87
Lead plating	256	16	19
Weights & ballast	4,512	608	631
Total	9,148	1,065	1,149
Other uses			
unclassified	11,652	1,143	1,056
Total reported	1,844,339	100,561	93,694
Estimated unreported			
consumption	9,000	1,000	1,000
Grand total	1,853,300	101,600	94,700
Daily average	3,126	3,277	3,156

* Includes lead content of leaded zinc oxide production.
† Includes lead content of scrap used directly in fabricated products.
‡ Based on number of days in month without adjustment for Sundays and holidays.

U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

	(In tons of 2,240 pounds)		
	1955	1956	1957
Jan.	29,062	31,012	29,657
Feb.	28,926	30,125	29,219
Mar.	33,225	30,099	29,441
Apr.	28,656	28,186	27,248
May	31,092	29,752	31,574
June	32,627	31,501	28,607
July	26,994	26,963	27,604
Aug.	26,954	25,077	24,756
Sept.	34,291	30,274	29,519
Oct.	34,121	32,057	32,486
Nov.	34,820	32,036	...
Dec.	29,689	25,963	...
Total	370,794	353,045	...

American Antimony

Monthly Average Prices

In bulk, f.o.b. Laredo
(Cents per lb. in ton lots)

	1954	1955	1956	1957
Jan.	28.50	28.50	33.00	33.00
Feb.	28.50	28.50	33.00	33.00
Mar.	28.50	28.50	33.00	33.00
Apr.	28.50	28.50	33.00	33.00
May	28.50	28.50	33.00	33.00
June	28.50	28.50	33.00	33.00
July	28.50	28.50	33.00	33.00
Aug.	28.50	30.66	33.00	33.00
Sept.	28.50	33.00	33.00	33.00
Oct.	28.50	33.00	33.00	33.00
Nov.	28.50	33.00	33.00	33.00
Dec.	28.50	33.00	33.00	...
Aver.	28.50	30.18	33.00	...

Lead Imports and Exports

By Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

IMPORTS

	1957		
	July	Aug.	Sept.
U. S.* (s.t.)	25,224	23,162	...
Canada (s.t.)	16	...	...
Denmark	1,119	1,280	2,034
France	1,263	2,285	3,643
Germany, W.†	2,464	2,811	...
Italy‡	1,149	...	...
Netherlands	2,379	2,140	...
Norway	600	...	...
Sweden	900	1,996	...
Switzerland	1,369	1,264	1,372
U. K. (l.t.)	16,608	13,006	4,659
India‡ (l.t.)	1,485	1,140	...

EXPORTS

	1957		
	584	52	...
U. S. (s.t.)	4,683	6,416	...
Denmark	670	411	753
France	393	1,626	2,992
Germany, W.†	1,317	2,192	...
Netherlands	481	674	...
Sweden	786	906	...
Switzerland	3	2	...
Northern Rhodesia‡ (l.t.)	1,024	1,091	...
Australia‡ (l.t.)	10,223	...	...

* Refined.

† Includes scrap.

‡ Includes lead alloys.

§ British Bureau of Non-Ferrous Metal Statistics.

French Lead Imports

(A. B. M. S.)

(In metric tons)

	1957		
	Aug.	Sept.	Oct.
Ore (gross weight)	8,560	7,302	9,931
Italy	...	...	525
Algeria	283	563	...
Morocco	8,277	6,739	9,406
Pig lead	2,285	3,643	5,921
Belgium	...	640	...
Germany (W.)	...	275	275
Algeria	1	...	...
Morocco	1,269	918	3,141
Tunisia	1,015	1,810	2,484
Other countries	...	...	21

U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1957		
	Aug.	Sept.	Oct.
(Gross Weight)			
Lead and lead alloys	13,006	4,659	19,005
Australia	7,719	1,203	15,529
Canada	3,851	1,625	3,076
Belgium	...	450	175
Yugoslavia	49	100	175
United States	400	...	...
Peru	550	950	50
Other countries	437	331	...

METALS, DECEMBER, 1957

Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

SEPTEMBER

	Soft lead	Antimonial lead	Lead in alloys	Lead in Copper-base scrap	Total
Metal products	35,755	23,049	3,613	1,848	64,265
Pigments	9,309	17	...	...	9,326
Chemicals	14,250	11	...	...	14,261
Miscellaneous	757	392	...	...	1,149
Unclassified	864	149	11	...	1,024
Total	60,935	23,618	3,624	1,848	*90,025

* Excludes 3,074 tons of lead which went directly from scrap to fabricated products and 595 tons of lead contained in leaded zinc oxide production.

Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1948, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign areas also is included.

(Tons of 2,000 lbs.)

	Stock Beginning	Production	Domes- tic	Shipments	Stock at End	Unfilled Orders at End	Daily Prod.
			Drawback	Gov't Acc't	Total		
1950	Tl. 94,221	910,354	849,246	18,189	122,256	995,891	8,884
1950	Mo. Avg.	75,863	70,770	1,516	10,968	82,974	
1951	Tl. 8,884	931,833	826,800	42,067	39,949	918,816	21,901
1951	Mo. Avg.	77,653	69,733	3,506	3,329	76,568	
1952	Tl. 21,901	961,420	803,343	55,202	36,526	896,171	87,160
1952	Mo. Avg.	80,119	66,945	4,683	3,052	74,681	
1953	Tl. 180,843	971,191	818,850	16,326	42,322	877,508	180,843
1953	Mo. Avg.	80,933	68,238	1,361	3,528	73,126	
1954	Tl. 124,277	868,242	787,922	27,929	108,957	924,808	124,277
1954	Monthly Avg.	72,858	65,660	2,327	9,080	77,067	45,862
1955	Jan.	85,918	85,918	1,625	7,267	92,860	.....
1955	Aug.	84,874	87,042	865	2,155	90,080	46,084
1955	Sept.	85,448	85,664	1,274	2,427	87,365	42,167
1955	Oct.	89,449	85,770	38	1,942	87,748	42,868
1955	Nov.	85,616	91,585	280	1,561	92,426	38,085
1955	Dec.	85,616	92,578	884	1,963	89,857	46,979
1955	Total	40,979	1,031,018	1,007,619	19,497	87,200	1,104,316
1955	Monthly Avg.	85,918	85,918	1,625	7,267	92,860	45,862
1956	Jan.	90,813	87,723	1,084	1,155	89,952	41,830
1956	Feb.	86,329	84,727	317	2,782	87,826	39,533
1956	Mar.	91,690	84,304	460	6,821	91,485	40,028
1956	Apr.	80,038	88,664	74,789	1,427	84,670	30,795
1956	May	47,907	81,288	55,085	287	10,194	69,588
1956	June	59,577	78,831	53,948	539	18,065	68,672
1956	July	69,226	88,080	84,219	811	14,501	49,531
1956	Aug.	102,775	89,549	70,707	1,235	16,075	88,017
1956	Sept.	104,307	90,235	73,142	934	18,301	92,377
1956	Oct.	102,165	93,493	465	21,392	106,848	88,810
1956	Nov.	88,810	91,808	84,475	787	27,168	110,433
1956	Dec.	70,185	98,234	80,772	671	18,354	99,797
1956	Total	1,062,954	869,270	9,027	157,014	1,035,311	68,622
1956	Monthly Avg.	88,810	72,439	752	13,065	86,275	34,913
1957	Jan.	93,452	67,273	450	15,377	83,100	78,974
1957	Feb.	88,078	67,731	1,327	10,905	80,163	86,889
1957	Mar.	87,040	96,924	67,441	1,558	25,606	94,607
1957	Apr.	89,357	96,506	55,000	1,411	23,921	80,332
1957	May	105,531	96,855	60,729	2,106	26,858	89,693
1957	June	112,693	90,719	54,273	1,358	14,324	69,957
1957	July	133,453	85,779	57,862	4,497	11,186	73,055
1957	Aug.	149,179	84,166	70,318	860	9,871	81,049
1957	Sept.	149,296	77,455	62,111	530	10,344	72,985
1957	Oct.	153,766	81,492	66,225	372	12,736	79,333
1957	Nov.	155,923	79,754	73,419	581	9,148	83,148
1957	Total	898,599	286,817	107,293	45,979	33,342	876,130
1955	August	38,317	30,168	10,244	5,431	3,027	87,687
1955	September	39,181	31,804	12,672	4,185	3,507	91,849
1955	October	40,030	35,136	13,961	4,714	3,596	97,940
1955	November	38,116	38,616	13,455	3,952	3,636	98,275
1955	December	37,249	36,982	15,003	3,900	3,621	96,755
1955	Total	439,694	404,790	144,816	50,363	39,302	1,081,468
1956	January	38,148	36,554	13,097	4,442	3,665	95,906
1956	February	37,702	31,274	12,678	3,883	3,325	88,862
1956	March	38,662	31,332	12,889	4,433	3,566	90,882
1956	April	37,092	29,226	12,635	4,010	3,359	86,322
1956	May	38,064	26,003	12,218	3,431	1,260	80,976
1956	June	37,005	21,790	8,351	3,454	1,315	71,915
1956	July	12,960	21,425	5,193	3,187	2,883	45,648
1956	August	33,840	26,814	8,420	4,222	2,959	76,255
1956	September	37,313	26,998	8,370	3,397	3,280	79,358
1956	October	40,875	34,985	10,164	4,158	3,695	93,877
1956	November	36,767	32,812	9,581	3,625	3,539	87,224
1956	December	32,790	33,238	8,799	3,140	3,405	82,272
1956	Total	421,218	352,451	122,395	45,382	36,251	988,097
1957	January	34,337	37,517	10,800	3,502	3,434	90,490
1957	February	31,686	32,520	9,156	3,284	3,206	80,752
1957	March	30,747	30,946	8,860	3,553	3,378	78,384
1957	April	30,631	29,166	9,491	4,001	3,300	77,489
1957	May	30,537	28,423	9,563	3,389	3,097	75,909
1957	June	29,907	27,688	8,710	3,613	2,646	73,464
1957	July	26,067	26,116	6,361	2,698	2,981	65,123
1957	August	27,885	29,237	9,755	3,686	3,099	74,562

Prime Western Zinc Prices

(Cents per pound)

(In tons of 2,240 pounds)

	1954	1955	1956	1957
Jan.	9.76	11.50	13.46	13.50
Feb.	9.375	11.50	13.50	13.50
Mar.	9.66	11.50	13.50	13.50
Apr.	10.25	11.93	13.50	13.50
May	10.29	12.00	13.50	11.933
June	10.96	12.25	13.50	10.84
July	11.00	12.50	13.50	10.00
Aug.	11.00	12.50	13.50	10.00
Sept.	11.44	12.96	13.50	10.00
Oct.	11.50	13.02	13.50	10.00
Nov.	11.50	13.00	13.50	10.00
Dec.	11.50	13.00	13.50	....
Av.	10.69	12.305	13.497	....

High Grade Zinc Prices

(Delivered)

N. Y. Monthly Averages

	1954	1955	1956	1957
Jan.	11.11	12.85	14.81	14.85
Feb.	10.725	12.85	14.85	14.85
Mar.	11.01	12.85	14.85	14.85
Apr.	11.60	13.28	14.85	14.85
May	11.64	13.35	14.85	13.283
June	12.31	13.60	14.85	12.19
July	12.35	13.85	14.85	11.35
Aug.	12.35	13.85	14.85	11.35
Sept.	12.79	14.31	14.85	11.35
Oct.	12.85	14.37	14.85	11.35
Nov.	12.85	14.35	14.85	11.35
Dec.	12.85	14.35	14.85	....
Av.	12.04	13.655	14.847	....

U. K. Zinc Consumption

British Bureau of Non-Ferrous Metal Statistics

(In Tons of 2,240 Pounds)

	1955	1956	1957
Jan.	29,192	29,779	28,485
Feb.	28,814	29,568	26,276
Mar.	33,451	28,650	27,049
Apr.	27,741	25,348	24,247
May	29,237	27,922	29,589
June	31,467	26,650	25,202
July	23,695	23,826	25,934
Aug.	23,261	18,867	20,381
Sept.	30,080	25,470	27,792
Oct.	29,460	27,784	....
Nov.	31,516	27,713	....
Dec.	28,683	24,134	....
Total	346,597	315,711	....

**Mine Production of Zinc
in United States**
(U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1952				
Total	185,939	94,410	385,652	666,001
1953				
Total	183,612	57,300	293,818	534,730
1954				
Total	166,487	63,100	234,942	464,539
1955				
Total	163,230	73,630	277,811	514,671
1956				
May	14,834	5,557	26,840	47,232
June	13,730	5,228	26,135	45,093
July	13,028	5,364	24,571	42,963
Aug.	14,559	5,425	25,453	45,437
Sept.	13,567	4,628	23,785	41,980
Oct.	17,439	4,815	26,607	48,861
Nov.	15,604	4,566	25,279	45,449
Dec.	15,513	4,160	24,411	44,084
Total	175,310	61,080	301,253	537,643
1957				
Jan.	18,586	4,916	25,864	49,186
Feb.	15,989	4,658	25,200	45,847
Mar.	17,834	5,156	27,430	50,420
Apr.	18,245	4,912	27,598	50,755
May	17,066	1,744	27,250	46,060
June	16,981	2,855	24,685	44,521
July	15,391	2,679	23,779	41,849
Aug.	17,078	1,858	22,383	41,319
Sept.	14,111	187	19,390	33,688

*Includes Alaskan output in some months.

**Mine Production of Lead
in United States**
(U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1952				
Ttl.	11,252	150,302	228,607	390,161
1953				
Ttl.	9,970	136,650	188,776	335,412
1954				
Ttl.	8,608	138,940	169,804	317,352
1955				
Dec.	771	13,628	13,403	27,802
Ttl.	10,379	145,640	177,409	333,409
1956				
Apr.	1,028	11,948	16,729	29,705
May	1,091	12,497	16,387	29,975
June	897	11,492	17,092	29,481
July	749	11,459	15,761	27,969
Aug.	879	12,760	16,991	30,630
Sept.	868	10,632	15,915	27,415
Oct.	879	12,698	17,843	31,520
Nov.	862	10,779	16,862	28,503
Dec.	804	10,670	15,635	27,109
Ttl.	11,395	141,900	195,034	348,329
1957				
Jan.	1,002	12,513	16,714	30,229
Feb.	942	11,730	16,464	29,136
Mar.	968	11,875	18,022	30,865
Apr.	1,053	12,695	17,187	30,915
May	988	11,107	17,760	29,855
June	648	10,569	15,500	26,717
July	532	11,430	15,032	26,994
Aug.	674	11,168	15,654	27,496
Sept.	744	9,935	13,680	24,359

**Mine Production of Gold
in United States**
(U. S. Bureau of Mines)
(In fine ounces)

	Eastern States	Western States	Alaska*	Total
1953	Ttl. 1,529	1,689,668	273,479	1,964,676
1954	Ttl. 1,731	1,577,216	252,794	1,831,741
1955	Ttl. 2,026	1,634,625	247,535	1,884,186
1956	Mar. 198	134,421	55	134,474
Apr.	156	136,227	522	136,911
May	175	141,240	5,085	146,494
June	199	139,541	13,112	152,852
July	45	126,628	32,515	159,188
Aug.	178	136,812	45,529	182,519
Sept.	194	137,561	40,564	178,319
Oct.	194	130,665	35,901	166,760
Nov.	206	133,456	25,506	159,162
Dec.	178	129,139	5,506	134,817
Ttl.	1,998	1,607,930	204,300	1,814,228
1957	Jan. 183	131,954	1,134	133,271
Feb.	153	124,555	1,495	126,203
Mar.	182	137,404	1,076	138,662
Apr.	168	130,116	97	130,381
May	165	137,953	5,839	143,957
June	204	129,196	11,457	140,857

* Alaska totals based on mint and smelter receipts.

U. S. Silver Production*

(A.B.M.S.)

	(In thousands of ounces; commercial bars, 0.999 fine, and other refined forms)		
	Dom.*	For.	Total
1952 Total	40,245	36,653	76,898
1953 Total	34,697	37,764	72,461
1954 Total	38,059	39,422	77,481
1955 Total	33,101	32,780	65,881
1956			
April	2,898	3,191	6,089
May	2,905	3,709	6,614
June	2,501	2,248	4,749
July	3,828	2,838	6,666
August	3,035	3,818	6,853
September	2,828	3,002	5,830
October	3,454	3,125	6,579
November	2,886	2,685	5,571
December	3,168	3,802	6,970
Total	38,157	40,160	78,317
1957			
January	2,997	2,877	5,874
February	2,925	2,876	5,801
March	3,360	3,166	6,526
April	3,735	2,807	6,542
May	2,486	1,388	3,874
June	3,386	2,880	6,266
July	2,859	3,452	6,311
Aug.	2,500	2,558	5,058
Sept.	2,937	3,263	6,200
Oct.	3,334	3,419	6,753

* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

Average Silver Prices

	(Cents per fine ounce)		
	1954	1955	1956
Jan.	85.25	85.25	90.357
Feb.	85.25	85.25	90.90
Mar.	85.25	85.25	91.138
Apr.	85.25	87.08	90.875
May	85.25	88.928	90.75
June	85.25	89.71	90.46
July	85.25	90.49	90.14
Aug.	85.25	90.75	90.614
Sept.	85.25	90.795	90.75
Oct.	85.25	91.794	90.722
Nov.	85.25	91.46	91.375
Dec.	85.25	90.45	91.375
Ave.	85.25	89.116	90.79

Note — The averages are based on the price of refined bullion imported on or after August 31, 1943.

U. S. Copper Imports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1957		
	July	Aug.	Sept.
Ore, matte &			
regulus (cont.)	9,963	10,199	10,438
Canada	1,845	3,165	4,298
Mexico	472	555	509
Cuba	183	2,776	1,346
Argentina	11		
Bolivia	102	584	389
Chile	1,483	1,330	1,821
Peru	1,038	1,017	1,186
Cyprus	2,195		
Philippines	1,089	1	1
U. of S. Africa	1,556	675	876
Australia	71		
Other countries	25		1
Blister copper			
(content)	27,729	26,824	20,557
Mexico	3,471	3,322	2,221
Chile	20,077	18,482	11,245
Peru	2,202	2,228	1,466
N. Rhodesia	980		1,113
U. of S. Africa	999	666	1,166
Turkey	2,126	1	
Australia			3,345
Refined cathodes			
and shapes	14,386	10,212	10,486
Canada	6,985	6,867	5,608
Mexico	251	766	662
Chile	2,648		
Peru	1,772	286	200
Germany (W.)	1		
Sweden			224
Belg. Congo	364	613	599
N. Rhodesia	2,365	1,680	2,812
U. of S. Africa			381
Total Imports:			
Crude & refined	52,078	47,235	41,481
Old and scrap			
(content)	948	324	577
Composition metal			
(content)	12		
Brass scrap & old			
(cu. cont.)	567	339	331

U. S. Copper Scrap Exports (A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1957		
	July	Aug.	Sept.
Copper scrap, un-			
alloyed* (new			
and old)	4,210	1,509	1,015
Canada	127		
France	279	68	
Germany (W.)	683	287	265
Netherlands	83	104	16
U. Kingdom			50
India			14
Japan	2,920	927	625
Hong Kong	100	27	17
Other countries	18	96	28
Copper-base			
scrap, alloyed†			
(new & old)	5,875	3,157	1,879
Canada	10		1
France	433	378	
Germany (W.)	1,575	1,053	498
Italy	191	136	314
Portugal	70		
Spain	29	73	55
Switzerland	35	133	
U. Kingdom			12
India	88		87
Japan	3,273	1,318	851
Hong Kong	160	66	28
Other countries	11		33

* Ash, brass mill, clippings, dross, flue dust, residues, scale, skimmings, wire scrap.
† Copper-base alloys, including brass and bronze — Ashes, clippings for remanufacture, cupro-nickel scrap, cupro-nickel trimmings, nickel silver scrap, phosphor bronze, phosphor copper, skimmings, turnings, round.

U. S. Copper Exports

	(A.B.M.S.) (Bureau of the Census)		
	(In tons of 2,000 lbs.)		
	July	Aug.	Sept.
Ore, conc., matte			
& other unref.			
(content)	1,127	748	1,676
Refined ingots,			
bars, etc.*	24,420	23,435	27,057
Canada	205	561	569
Argentina	728	3,383	1,615
Brazil	435	360	1,522
Belgium	336	672	
Denmark	6		
France	7,736	1,891	4,153
Germany (W.)	3,993	3,179	4,029
Italy	1,222	2,793	3,546
Netherlands	224	224	487
Norway			560
Sweden	112		
Switzerland	878	1,251	1,012
U. Kingdom	6,995	7,536	7,673
Yugoslavia	331	672	280
Formosa		107	
India	472	336	530
Japan	702	450	1,074
Other countries	45	20	7

Total Exports:

Crude & refined	25,547	24,183	28,733
Pipes and tubes	67	172	257
Plates and sheets	18	17	25
Rods	159	177	309

Brush-copper, castings, rolls, segments (finished forms) n.e.s.

Wire, bare	8	12	16
Building wire	570	479	695
and cable†	152	333	293
Weatherproof			
wire	5	86	27

Insulated copper	2,563	1,440	1,092
wire n.e.s.			
Zinc ore (cont.)	36,709	41,048	44,223
Canada	9,170	14,557	15,818
Mexico	16,196	15,101	16,709
Cuba	43	46	29
Guatemala	1,438	524	986
Honduras	577	101	148
Bolivia	42	481	1,487
Chile		347	
Peru	8,122	5,695	4,974
U. of S. Africa	611	2,738	3,949
Australia	66	588	1
Philippines	13	691	
Other countries	431	179	122

* Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper.

† Gross weight; n.e.s.—not elsewhere specified.

U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)

	(In tons of 2,000 lbs.)		
	1957		
	July	Aug.	Sept.
Zinc ore (cont.)	36,709	41,048	44,223
Canada	9,170	14,557	15,818
Mexico	16,196	15,101	16,709
Cuba	43	46	29
Guatemala	1,438	524	986
Honduras	577	101	148
Bolivia	42	481	1,487
Chile		347	
Peru	8,122	5,695	4,974
U. of S. Africa	611	2,738	3,949
Australia	66	588	1
Philippines	13	691	
Other countries	431	179	122

Zinc blocks, pigs, etc.

Canada	8,978	9,640	7,405
Mexico	1,044	1,671	2,590
Peru	3,213	1,942	2,275
Austria			110
Belgium	2,580	2,111	2,461

Germany (W.)

Germany (W.)	561	2,515	...
Italy	1,158	548	331
U. Kingdom		110	
Yugoslavia	165	1,085	276
Belg. Congo	4,046	2,767	77

Japan

Japan	154	179	...
Zinc ore,			
blocks, pigs	58,608	63,616	59,748
Dross and skim.	23	28	...
Old & worn out.	10	22	38

U. S. Zinc Exports

(A.B.M.S.) (Bureau of the Census)

	July	Aug.	Sept.
Slabs, blocks, etc.	3,769	789	446
Mexico		69	39
Cuba			3
Brazil		17	...
Chile		28	...
Belgium		112	...
Netherlands			28
U. Kingdom	3,359	336	336
Korea	36	250	...
India		336	...
Other countries	10	5	40

Total Exports:

Ore, conc.	3,769	789	446
Scrap: Ashes,			
dross and skim.	158	756	432
Rolled in sheets,			
plates & strips†	299	194	206
Alloys ex brass			
and bronze	18	8	15
Die castings		64	47
Battery shells and			
parts, unassem.	18	5	3

† Includes photoengraving sheets and plates.

U. S. Lead Imports

(A.B.M.S.) (Bureau of the Census)

	July	Aug.	Sept.
Ore, matte, etc.			
(content)	18,015	17,851	13,150
Canada		1,614	2,626
Mexico		285	306
Guatemala		843	614
Honduras		510	148
Argentina		111	119
Bolivia		1,439	1,298
Peru		6,161	5,358
U. of S. Africa		4,999	2,627
Australia		1,690	4,250
Philippines		139	36
Korea			232
Other countries		30	100

Base bullion

(content)	59	...	25
Peru		59	...
Pigs and bars	25,224	23,162	23,042
Canada	3,086	3,113	2,325
Mexico	5,422	8,532	5,077
Peru	3,983	4,319	3,800
Denmark	76		81
France			55
Germany		110	441
Spain			308
U. Kingdom			56
Yugoslavia	3,031	1,533	4,907
Morocco		2,208	2,142
Australia	9,436	2,665	3,739
Other countries	220	682	111

Total Imports:

Ore, base bullion, refined	43,298	41,013
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World Production of Copper
(American Bureau of Metal Statistics)
(In Tons of 2,000 Pounds)

	United States	Canada	Mexico (crude)	Chile	Peru	Fed. Rep. of Germany	Norway	United Kingdom	Yugoslavia	India	Japan	Turkey	Australia	Northern Rhodesia (c)	Union of South Africa (d)
	(a)	(b)	(c)	(d)	(d)	(e)	(f)	(g-h)	(e)	(f-h)	(e)	(f)	(e)	(e)	(d)
1951															
Total	864,589	269,971	60,511	396,937	25,495	234,647	....	....	....	100,254	....	16,984	349,667	36,104	
1952															
Total	961,886	258,868	60,874	422,493	22,640	206,747	11,206	163,963	36,176	7,000	104,060	2,546	21,119	336,883	37,459
1953															
Total	957,318	258,652	62,380	371,742	25,803	233,330	18,806	108,604	34,831	5,700	100,381	25,641	37,080	332,884	38,341
1954															
Total	863,721	302,954	59,030	372,814	29,233	258,259	14,205	152,858	33,894	8,274	117,371	27,727	42,241	386,577	43,153
1955															
Total	1,036,702	326,599	61,583	447,288	35,478	286,805	14,876	138,271	31,151	8,432	124,908	26,313	41,935	350,302	47,176
1956															
Aug.	91,282	28,710	5,357	44,202	2,523	24,006	1,251	3,323	782	12,443	1,584	4,841	33,720	4,715	
Sept.	88,659	31,196	5,609	41,475	....	21,022	1,510	11,281	3,028	785	12,015	2,298	4,207	26,917	4,307
Oct.	95,109	29,977	6,488	47,346	....	24,405	1,733	11,127	3,020	757	12,477	2,754	4,497	42,381	4,868
Nov.	90,573	29,837	5,871	46,407	....	22,156	1,344	2,733	702	10,648	2,717	5,252	38,800	4,170	
Dec.	92,231	30,423	5,521	44,911	838	21,989	1,293	9,174	2,687	786	11,993	2,064	4,7-7	38,892	4,299
1957															
Jan.	94,873	26,053	5,592	44,697	2,276	21,990	1,399	11,528	2,697	440	12,493	1,565	4,047	36,360	3,744
Feb.	92,508	29,033	4,630	41,890	3,131	20,736	956	11,178	2,586	768	12,599	1,455	4,088	35,251	3,392
Mar.	96,363	30,521	5,688	42,596	3,255	24,554	931	11,651	3,123	850	12,116	3,011	4,688	43,471	3,671
Apr.	98,910	27,917	5,139	31,761	2,559	23,515	1,635	7,853	3,049	810	8,860	3,057	5,029	37,605	....
May	96,334	26,640	5,421	38,769	4,122	23,795	1,608	12,998	3,194	810	13,479	2,995	5,036	44,471	4,151
June	95,893	26,841	5,107	40,262	4,987	21,816	1,455	7,991	3,272	787	13,930	2,017	3,021	37,874	3,839
July	86,141	26,349	5,961	40,351	5,839	24,170	1,418	11,492	3,096	774	14,585	961	....	31,450	3,305
Aug.	89,680	29,931	5,144	36,744	4,005	24,709	1,649	5,926	....	718	14,667	1,757	2,912	....	....
Sept.	87,270	30,076	4,960	32,822	4,270	14,654	....	12,237	....	757	14,448	....	42,871	....	....
Oct.	92,789	....	6,140	....	3,000	....	....	....	....	....	....	....	....	43,123	....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake". Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, etc., exported. (c) Crude copper, i.e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e.g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. *Refined.

World Production of Refined Lead

(American Bureau of Metal Statistics)
(In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Italy	Spain	Yugoslavia	Japan	Australia (a)	French Morocco	Tunisia	Rhodesia	Total
	(a)	(b)	(c)	(d)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(a)	(b)	(c)	(d)	
1951																
Total	486,874	162,712	219,362	48,824	77,873	52,831	170,766	39,683	45,460	....	18,516	217,301	20,287	25,476	15,646	1,802,681
1952																
Total	582,778	183,889	248,551	59,536	82,139	59,607	152,751	38,504	46,080	74,058	20,882	217,298	31,224	28,264	14,112	1,788,648
1953																
Total	588,883	166,856	226,075	66,520	84,162	80,887	164,077	40,786	53,799	78,088	25,813	241,419	29,970	30,397	12,891	1,813,778
1954																
Total	651,618	166,879	231,595	63,735	79,260	71,083	162,773	41,150	62,475	73,555	37,612	260,424	29,417	30,015	16,800	1,877,841
1955																
Total	547,153	148,811	221,138	67,303	91,241	73,251	162,508	46,806	67,509	83,347	40,912	254,558	28,870	28,620	17,976	1,893,125
1956																
Aug.	48,404	12,196	18,890	6,192	9,872	1,896	11,586	2,440	4,724	7,546	4,126	19,757	4,151	1,933	1,490	155,665
Sept.	53,530	12,706	18,567	6,378	9,213	6,071	13,671	2,833	5,962	6,182	4,614	23,654	3,630	2,970	1,344	172,788
Oct.	54,815	13,923	20,169	2,237	9,243	7,212	16,873	4,600	6,002	8,237	4,271	26,243	2,490	2,389	1,400	181,423
Nov.	50,744	12,914	17,934	9,312	7,883	17,679	3,319	5,343	7,632	4,794	23,220	....	2,180	....	1,232	145,282
Dec.	54,062	12,531	17,088	5,787	9,540	1,797	17,094	3,667	5,113	7,747	4,885	22,263	1,948	2,724	1,344	169,392
1957																
Jan.	50,854	10,117	19,212	5,676	9,971	8,084	16,540	3,196	5,389	6,195	4,928	21,498	4,052	1,261	1,344	169,640
Feb.	48,012	10,192	18,574	5,736	9,969	7,970	14,516	3,519	3,980	6,213	4,863	17,060	3,759	2,544	1,323	159,984
Mar.	52,357	12,727	17,873	6,431	9,906	8,103	16,420	3,574	6,031	8,643	4,464	18,515	2,215	2,817	1,120	172,730
Apr.	56,170	12,436	20,235	5,915	9,359	7,624	17,559	3,406	6,235	7,515	3,416	18,127	2,047	1,733	1,400	174,593
May	51,718	13,172	13,942	5,355	9,766	8,890	17,424	3,275	6,610	5,477	25,268	2,211	2,490	1,400	173,276	
June	48,203	12,406	8,524	6,083	9,722	7,809	13,802	3,537	4,932	6,775	4,829	21,847	2,392	1,997	1,456	156,657
July	47,100	12,098	15,831	6,768	8,083	7,396	16,315	4,000	5,893	6,687	4,786	22,242	3,113	2,270	1,456	164,802
Aug.	48,191	....	26,341	7,258	7,961	7,443	15,408	2,869	6,124	4,786	23,548	2,477	1,903	1,456	....	....
Sept.	50,436	....	20,151	6,553	....	7,768	15,936	4,178	5,866	5,366	....	2,463	1,821	1,456	1,456	....
Oct.	52,041	....	18,627	6,323	....	7,792	15,936	4,178	5,866	5,366	....	2,463	1,821	1,456	1,456	....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

World Production of Slab Zinc

(American Bureau of Metal Statistics)
(In Tons of 2,000 Pounds)

	United States	Can.	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Great Britain	Italy	Nether-lands	Norway	Spain	Yugo-slovia	Japan	Australia (b)	Rho-desia (b)	Total (d)
	(a)	(b)	(b-c)	(a)	(d)	(e)	(f)	(g)	(h)	(b)	(i)	(j)	(a)	(b)	(b)	(d)	
1951																	
Total	931,838	218,548	57,990	1,003	220,479	82,184	155,024	78,161	52,058	24,924	44,971	23,444	....	62,109	88,103	26,801	2,065,216
1952																	
Total	961,480	223,140	61,485	5,491	205,909	88,255	162,272	76,981	60,428	28,555	48,061	23,829	15,948	77,203	97,981	25,687	2,141,088
1953																	
Total	971,191	247,707	59,589	9,819	213,215	89,218	163,430	81,486	65,780	27,721	42,586	24,152	16,037	86,833	101,008	28,370	2,128,917
1954																	
Total	868,242	218,810	60,477	16,982	284,898	122,248	184,806	90,987	74,356	28,686	48,768	25,109	15,040	112,292	117,066	29,736	2,148,501
1955																	
Total	1,031,018	257,008	61,879	18,943	233,623	123,623	197,024	90,917	77,761	31,203	49,724	26,244	15,175	122,965	113,221	31,248	2,154,457
1956																	
Aug.	89,549	21,354	5,154	1,427	20,996	17,633	6,925	6,995	2,543	4,826	4,826	1,915	1,420	12,385	10,032	2,464	221,801
Sept.	90,235	20,691	5,018	....	21,207	10,210	17,187	9,180	6,817	2,452	4,487	1,9					

U. K. Virgin Copper Stocks

(In long tons)

British Bureau of Non-Ferrous Metal Statistics

At start of:	1955	1956	1957
Jan.	61,480	76,197	59,614
Feb.	62,771	79,377	59,203
Mar.	70,185	71,634	62,120
Apr.	67,566	73,776	61,779
May	60,767	76,481	71,101
June	58,546	71,713	61,991
July	64,256	76,188	64,121
Aug.	99,628	68,197	81,146
Sept.	107,261	72,069	98,595
Oct.	93,681	62,327	100,815
Nov.	75,533	58,893	90,877
Dec.	77,749	55,838	...

U. K. Refined Lead Stocks

(British Bureau of Non-Ferrous Metal Statistics)

(In long tons)

At start of:	1955	1956	1957
Jan.	31,173	40,987	39,420
Feb.	32,274	34,326	41,433
Mar.	39,461	29,693	36,900
Apr.	37,587	33,974	34,877
May	45,226	29,479	44,933
June	38,760	30,537	40,804
July	30,816	37,088	42,148
Aug.	32,270	35,432	48,275
Sept.	48,036	35,793	51,435
Oct.	42,912	39,391	45,301
Nov.	42,061	32,662	50,371
Dec.	38,410	32,025	...

U. K. Stocks of Zinc

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

Virgin Zinc Zinc Conc.

At start of:	1956	1957	1956	1957
Jan.	49,962	44,816	54,447	53,274
Feb.	45,239	40,501	49,537	63,366
Mar.	44,288	38,927	48,667	59,957
Apr.	49,194	41,260	40,502	55,698
May	49,129	37,540	36,524	52,871
June	47,266	36,000	40,136	49,646
July	47,644	37,384	40,763	55,900
Aug.	49,169	35,561	47,972	52,588
Sept.	51,946	44,207	57,125	59,028
Oct.	50,978	41,255	55,354	65,347
Nov.	47,364	42,095	54,376	67,828
Dec.	46,364	...	55,223	...

U. K. Copper Exports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

1957

Aug. Sept. Oct.

(Gross Weight)	1956	1957	1956	1957
Copper				
unwrought —				
ingots, blocks,				
slabs, bars, etc.	811	1,252	1,213	
Plates, sheets,				
rods, etc.	2,334	1,245	2,019	
Wire (including				
uninsulated				
electric wire)	3,784	1,916	5,239	
Tubes	1,056	1,045	1,198	
Other copper,				
worked (incl.				
pipe fittings)	93	39	78	
Total	8,078	5,497	9,747	

Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 pounds)

	Unalloyed	Alloyed*	Total	Virgin	Scrap
1953 Total	243,717	192,337	447,260	322,311	124,949
1954 Total	328,149	251,989	580,138	448,413	131,725
1955 Total	377,576	281,953	659,529	496,467	163,062
1956					
July	31,752	19,816	51,086	39,149	11,919
August	24,426	14,434	38,860	30,065	8,795
September	35,203	19,584	54,787	45,807	8,980
October	36,824	21,275	58,099	47,814	10,285
November	38,244	21,142	59,386	47,144	12,242
December	29,927	17,437	47,364	38,505	8,859
Total	388,167	251,312	639,479	500,794	138,685
1957					
January	40,014	21,574	61,588	51,118	10,470
February	36,191	19,849	56,040	43,326	12,714
March	33,537	19,895	53,432	42,787	10,645
April	33,744	18,124	51,868	40,940	10,928
May	36,721	21,395	58,116	44,740	13,376
June	32,922	18,332	51,254	39,756	11,498
July	32,049	19,388	51,437	38,441	12,996
August	24,606	14,834	39,440	30,583	8,857
September	35,404	19,666	55,070	43,883	11,187
October	38,044	22,004	60,048	49,638	10,410

*Includes copper sulphate effective October, 1954.

U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

1957

Aug. Sept. Oct.

(Gross Weight)	1957	July	Aug.	Sept.
Zinc ore				
and conc.	27,261	24,570	16,433	
Zinc conc.	13,358	13,561	...	
Australia	9,195	9,781	...	
Canada	4,163	...		
Burma	...	1,189	...	
Turkey	...	1,693	...	
Spain	...	898	...	
Zinc and				
zinc alloys	16,621	7,842	13,752	
N. Rhodesia	75	150	150	
Australia	500	...	...
Canada	8,074	4,304	7,150	
Belgium	1,206	1,001	1,512	
Germany (W.)	1	3	1	
Netherlands	100	115	25	
Norway	100	...	100	
United States	3,225	460	500	
Other countries	3,340	1,809	4,314	
Of which:				
Zinc or spelter,				
unwrought in				
ingots, blocks,				
bars, slabs and				
caskets	16,623	7,842	13,752	
* Includes scrap.				
† Includes manufactures.				
‡ British Bureau of Non-Ferrous Metal Statistics				

United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

	Tin Content of Tin in Ore			Tin Metal		
	Imports	Production*	Stock at end of period	Imports	Production*	Stock at end of period
1955 Total	27,084	1,084	2,181	1,227	27,241	22,890
1956						
August	2,691	48	2,713	20	1,931	1,577
September	934	83	1,277	247	2,575	1,903
October	3,396	101	2,561	73	2,272	2,223
November	2,034	88	2,308	445	2,293	1,997
December	2,305	91	2,393	131	2,118	1,649
1956 Total	26,571	1,044	2,393	2,226	26,434	22,232
1957						
January	3,584	105	3,359	25	2,519	2,134
February	2,468	80	2,812	25	2,688	1,936
March	4,342	85	4,689	66	2,835	1,878
April	2,192	87	3,952	379	2,074	1,752
May	3,019	89	3,637	111	3,564	2,240
June	2,689	90	3,223	158	2,735	1,799
July	2,743	116	3,200	69	2,576	1,862
August	2,305	...	4,070	483	2,740	1,368
September	4,291	...	527	2,260	1,836	431

*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on ton. Stocks exclude strategic stock but include official warehouse stocks.

Canada's Copper Output

(Dominion Bureau of Statistics)

(Refined Copper)			
(In Tons)			
1954	1955	1956	1957
Jan. 15,001	22,600	26,653	25,469
Feb. 13,954	21,455	26,229	21,861
Mar. 21,075	25,083	26,750	27,664
Apr. 20,412	24,077	26,617	27,398
May 23,012	23,840	27,626	29,086
June 23,344	21,890	27,122	24,093
July 21,582	21,185	27,250	27,195
Aug. 22,000	26,184	29,219	26,943
Sept. 22,684	24,752	27,950	24,634
Oct. 21,661	25,546	29,696	....
Nov. 22,981	25,213	27,346	....
Dec. 24,935	27,172	28,716	....
Year 252,643	288,987	331,174	....

Year 252,643 288,987 331,174

Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs)			
(In Tons)			
1954	1955	1956	1957
Jan. 6,170	5,500	4,888	8,946
Feb. 7,560	11,882	3,856	6,633
Mar. 11,092	10,318	4,007	7,044
Apr. 9,806	11,967	7,636	7,314
May 11,483	6,416	7,214	9,676
June 12,018	9,897	6,632	7,210
July 13,152	8,341	9,696	4,682
Aug. 8,646	4,884	4,713	6,416
Sept. 10,045	5,538	9,908	8,467
Oct. 8,005	8,053	9,072	....
Nov. 10,817	4,622	9,227	....
Dec. 7,815	5,286	2,734	....
Year 116,406	92,407	79,633	....

Year 116,406 92,407 79,633

Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates)			
(Fine Ounces)			
1955	1956	1957	
Jan. 429,704	435,047	253,940	
Feb. 457,261	196,803	380,463	
Mar. 411,597	328,857	521,849	
Apr. 493,578	348,838	431,646	
May 445,054	447,710	523,228	
June 592,238	495,742	468,559	
July 285,350	686,209	844,545	
Aug. 644,932	1,080,301	811,530	
Sept. 636,992	481,042	861,857	
Oct. 684,301	731,099	....
Nov. 387,147	669,285	....
Dec. 405,719	1,023,481	....
Year 5,873,873	6,924,414	....

Year 5,873,873 6,924,414

Canada's Copper Exports

(Ingots, bars, slabs and billets)

(In Tons)			
1954	1955	1956	1957
Jan. 9,081	11,078	15,981	20,582
Feb. 8,385	12,897	11,041	16,272
Mar. 11,671	12,423	12,276	14,720
Apr. 11,218	10,321	14,476	16,417
May 18,407	10,911	12,851	19,048
June 14,877	13,387	10,985	10,826
July 15,467	12,674	13,599	18,621
Aug. 14,158	13,219	14,710	21,980
Sept. 14,069	13,479	17,268	14,314
Oct. 11,528	14,208	13,896	....
Nov. 13,372	14,545	19,130	....
Dec. 13,897	14,057	18,630	....
Year 156,130	153,199	174,843	....

Year 156,130 153,199 174,843

Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc)			
(In Tons)			
1954	1955	1956	1957
Jan. 17,155	22,028	21,696	20,340
Feb. 15,199	19,865	20,356	19,808
Mar. 16,550	22,215	22,010	21,941
Apr. 16,249	21,301	21,339	20,504
May 16,530	21,599	21,790	20,564
June 17,017	20,565	20,780	19,928
July 17,917	21,769	21,691	20,061
Aug. 18,755	22,029	21,354	20,305
Sept. 18,023	20,898	20,691	20,247
Oct. 18,871	22,206	21,412	....
Nov. 19,662	21,398	20,470	....
Dec. 21,922	21,135	22,012	....
Year 213,810	257,008	255,601	....

Year 213,810 257,008 255,601

Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)			
1955	1956	1957	
Jan. 2,182,386	2,280,575	2,132,011	
Feb. 1,960,506	2,094,467	2,010,242	
Mar. 2,413,591	2,296,648	2,316,620	
Apr. 2,304,287	1,759,384	2,196,952	
May 2,235,620	2,463,374	2,078,278	
June 2,461,675	2,494,748	2,172,435	
July 2,385,654	2,267,271	2,324,624	
Aug. 2,480,607	2,315,312	2,471,326	
Sept. 2,386,385	2,517,451	2,727,438	
Oct. 2,371,890	2,379,162	....
Nov. 2,088,991	2,429,547	....
Dec. 2,388,627	2,357,202	....
Year 27,696,319	27,655,141	....

Year 27,696,319 27,655,141

Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead) *			
(In Tons)			
1954	1955	1956	1957
Jan. 17,716	18,959	16,002	14,032
Feb. 16,863	15,018	14,344	15,170
Mar. 17,104	19,113	16,857	16,940
Apr. 19,452	17,889	11,573	14,275
May 19,953	16,808	15,446	14,591
June 18,988	17,800	18,145	16,431
July 19,164	16,650	15,841	14,377
Aug. 18,237	16,676	16,104	14,642
Sept. 17,066	15,972	15,760	15,813
Oct. 16,569	13,658	16,725	....
Nov. 18,365	15,182	14,865	....
Dec. 19,093	17,857	16,056	....
Year 219,280	201,583	188,971	....

Year 219,280 201,583 188,971

* New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)			
1954	1955	1956	1957
Jan. 16,625	22,181	15,550	19,304
Feb. 11,328	25,556	11,757	16,618
Mar. 18,199	20,178	8,822	14,923
Apr. 17,926	21,018	14,317	17,131
May 13,926	14,820	11,357	16,680
June 15,654	19,581	15,296	16,157
July 27,582	13,522	15,499	12,912
Aug. 14,934	16,581	13,070	20,520
Sept. 17,298	11,793	19,732	17,671
Oct. 13,064	19,836	20,792	....
Nov. 16,224	14,164	21,411	....
Dec. 23,277	14,607	16,125	....
Year 206,037	213,837	183,728	....

Year 206,037 213,837 183,728

Canada's Nickel Output

(Dominion Bureau of Statistics)

1954	1955	1956	1957
Jan. 12,765	14,387	14,985	16,609
Feb. 11,874	13,375	14,997	15,027
Mar. 13,619	15,544	15,504	16,733
Apr. 13,015	15,011	14,431	15,347
May 13,458	15,352	15,203	16,225
June 13,269	14,835	14,492	15,425
July 12,901	14,530	15,125	15,698
Aug. 13,428	14,825	14,852	16,615
Sept. 13,521	13,734	14,530	15,444
Oct. 14,323	14,411	15,762	....
Nov. 14,159	14,290	15,062	....
Dec. 14,947	14,881	14,824	....
Year 164,279	175,173	178,767	....

METALS, DECEMBER, 1957

Canadian Copper Exports

(Dominion Bureau of Statistics)

	(In tons of 2,000 lbs.)		
	1957		
	July	Aug.	Sept.
Ore, matte, regulus, etc.			
(content)	4,282	5,875	3,334
United States	2,666	4,691	2,005
Belgium	151	...	121
Germany (W.)	96	...	115
Norway	1,240	1,086	1,035
U. Kingdom	129	98	58
Ingots, bars,			
billets, anodes 18,621	21,980	14,314	
United States	5,875	8,995	4,993
Brazil	275	275	...
Denmark . . . . .	...	62	
France	1,680	1,341	1,385
Germany (W.)	140	196	
Italy	224		
Sweden	841	673	677
U. Kingdom	9,549	9,127	6,606
India	113	1,426	273
Other countries	64	3	122
Total Exports:			
Crude & refined 22,903	27,855	17,648	
Old and scrap	1,047	619	808
Rods, strips,			
sheet & tubing 789	1,067	589	

Canadian Zinc Exports

(Dominion Bureau of Statistics)

	(In tons of 2,000 lbs.)		
	1957		
	July	Aug.	Sept.
Ore (zinc content)	16,347	26,633	15,055
United States	9,695	11,377	15,055
Belgium	4,833	2,432	...
France	299	1,871	...
Germany (W.)	1,520	1,717	...
Norway	4,574	...	
U. Kingdom	4,662	...	
Slab zinc	12,912	20,520	17,671
United States	9,076	8,654	8,170
Italy	112	224	...
Netherlands	392	...	
U. Kingdom	2,632	10,061	9,382
Korea	567	52	
Hong Kong	118	67	
India	1,092	504	...
Total Exports:			
Ore and slabs	29,259	47,153	32,726
Zinc scrap,			
dross, ashes	271	140	74
United States	33	50	38
Belgium	105	28	36
Netherlands	8	...	
Japan	133	54	...

Canadian Lead Exports

(Dominion Bureau of Statistics)

	(In tons of 2,000 lbs.)		
	1957		
	July	Aug.	Sept.
Ore (lead content)	8,570	2,595	7,731
United States	2,603	2,595	1,615
Belgium	3,659	...	3,125
Germany (W.)	2,308	...	2,991
Refined lead	4,683	6,416	8,466
United States	3,016	3,126	2,321
Venezuela . . . . .	...	...	22
U. Kingdom	700	3,114	5,894
Japan	962	176	61
Other countries	5	...	168
Total Exports:			
Ore and refined 13,253	9,011	16,197	
Pipe and tubing	2	...	8
Lead scrap . . . . .	...	...	30

Copper Imports and Exports By Principal Countries

(A.B.M.S.)

Reported in ingots, slabs, etc.; metric tons except where otherwise noted.

	1957		
	July	Aug.	Sept.
IMPORTS			
U. S. (blast., s.t.)	27,729	26,824	...
(ore, etc., s.t.)	9,963	10,199	...
(refined, s.t.)	14,386	10,212	...
Denmark	343	408	397
France (crude)	813	...	
(refined)	18,010	15,182	9,450
Italy	6,925	...	
Germany, W.	27,460	20,088	...
Netherlands	1,541	334	...
Norway	200	...	
Sweden	3,413	3,624	...
Switzerland	1,980	1,821	3,067
U. K. (l.t.)	45,835	43,794	40,726
India (blister/-ref., l.t.)	4,624	3,466	...
EXPORTS			
U. S. (ore and unref., s.t.)	1,127	748	...
(refined, s.t.)	24,420	23,435	...
Canada (refined, s.t.)	18,621	21,980	...
Finland* . . . . .	...	265	
Germany, W.	4,106	4,169	...
Norway	1,453	1,016	...
Sweden	688	1,585	...
U. K. (l.t.)	1,627	811	1,252
No. Rhodesia (ref. & blast., l.t.)	33,714	27,733	26,142

* Includes old.
† British Bureau of Non-Ferrous Metal Statistics.

U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

	(In tons of 2,240 lbs.)		
	1957		
	Aug.	Sept.	Oct.
(Gross Weight)			
Copper and copper alloys	43,794	40,726	35,151
U. of S. Africa	351	...	
N. Rhodesia	22,932	18,318	14,383
Canada	6,018	6,016	6,213
Germany (W.)	17	63	7
Norway	60	...	101
United States	8,318	6,709	7,672
Chile	5,225	8,725	6,125
Peru	335	276	370
Belg. Congo	250	250	250
Other countries	639	18	30
Of which:			
Electrolytic	31,107	25,344	22,308
Other refined	3,250	5,476	4,050
Blister or rough	9,318	9,764	8,576
Wrought and alloys	119	142	217
Total	43,794	40,726	35,151

Canada's Nickel Exports

(Dominion Bureau of Statistics)

	(Refined, in oxides, matte, etc.)		
	(In Tons)		
	1955	1956	1957
January	14,421	15,121	14,260
February	13,915	13,940	9,974
March	13,564	16,219	14,958
April	16,083	14,448	18,671
May	14,761	14,729	18,351
June	16,296	16,403	14,539
July	13,929	11,079	14,181
August	14,861	18,470	14,966
September	14,638	13,849	14,160
October	13,583	12,800	...
November	13,073	14,084	...
December	14,749	15,594	...
Year	173,879	176,837	...

French Copper Imports

(A. B. M. S.)

	(In metric tons)		
	1957		
	Aug.	Sept.	Oct.
Crude copper for refining (blister, black and cement)	...	...	813
Belg. Congo . . . . .	...	...	813
Refined	15,182	9,450	13,472
United States	6,884	1,320	3,908
Canada	1,420	2,174	...
Chile . . . . .	...	...	3
Belgium	1,942	2,413	3,833
Germany (W.)	309	214	261
Norway	127	541	236
Sweden	127	333	394
U. Kingdom	121	125	25
Belg. Congo	2,952	1,023	2,703
Rhodesia . . . . .	...	...
Nyasaland	1,300	1,204	2,109
Other countries	103	...	

French Zinc Imports

(A. B. M. S.)

	(In metric tons)		
	1957		
	Aug.	Sept.	Oct.
Ore (gross weight)	24,474	26,308	20,071
Canada	3,517	...	
Peru	2,313	...	
Belgium	495	...	
Finland	686	2,460	
Greece	2,006	371	
Italy	1,985	4,069	1,087
Spain	1,536	...	1,522
Yugoslavia	1,400	...	
Algeria	7,501	5,124	5,756
Morocco	9,133	9,553	5,756
Tunisia . . . . .	...	1,093	1,103
Australia . . . . .	...	...	2,387
Slabs, bars, blocks, etc.	840	1,186	461
Belgium	490	1,009	355
Germany (W.)	240	20	...
Italy	110	...	100
Norway . . . . .	...	...	6

French Metal Exports

(A. B. M. S.)

	(In metric tons)		
	1957		
	Aug.	Sept.	Oct.
LEAD			
Ore (gross weight)	16	14	33
Pig lead	1,626	2,992	1,449
United States	50	250	25
Uruguay . . . . .	...	1	...
Denmark	203	1,270	254
Germany (W.)	497	494	220
Sweden	102	...	406
Switzerland	765	405	510
U. Kingdom . . . . .	...	508	...
Other countries	9	64	34
Antimonial lead	28	12	50
ZINC			
Slabs, bars, blocks, etc.	10	...	58

IT PAYS
to
ADVERTISE
in the
DAILY METAL REPORTER

Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL
(Bureau of Census — Thousands of Pounds)

	Alu- minum	Copper	Magn- esium	Zinc	Lead Die
1952 Total	518,979	1,009,910	34,857	408,353	20,941
1953 Total	658,022	990,496	34,517	521,253	20,444
1954 Total	607,764	834,557	25,572	474,741	18,396
1955 Total	833,058	1,011,748	27,892	781,254	21,045
1956					
April	67,880	90,679	3,140	58,274	1,910
May	65,786	89,188	3,021	52,205	1,919
June	58,189	78,921	2,949	47,775	1,888
July	52,955	60,926	2,810	42,227	1,551
August	61,507	77,619	3,059	52,321	2,112
September	62,503	72,109	3,079	46,340	1,004
October	74,209	81,049	3,442	65,450	2,206
November	69,741	72,866	2,892	64,972	1,788
December	67,333	65,198	2,794	58,111	1,483
Total	801,136	966,473	36,168	88,069	20,734
1957					
January	72,999	82,025	3,207	67,964	1,883
February	69,651	72,084	2,661	59,793	1,435
March	74,527	77,418	2,970	61,378	1,865
April	68,284	77,167	2,896	54,982	2,070
May	65,108	75,347	2,832	53,565	2,373
June	58,547	70,959	2,973	49,356	2,336
July	52,173	60,621	2,544	48,379	2,079
Aug.	55,735	71,233	2,315	49,829	2,165
Sept.	58,692	70,804	2,279	47,736	2,115

Copper Castings Shipments

BY TYPE OF CASTING
(Bureau of Census) (Thousands of Pounds)

	Total	Sand	Permanent	All	Other
1951 Total	1,197,443	1,075,437	69,883	12,516	39,607
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953 Total	990,496	888,369	61,316	10,077	30,734
1954 Total	834,557	751,804	48,849	6,480	27,394
1955 Total	1,011,748	907,852	63,041	8,541	31,408
1956					
April	90,679	81,333	5,835	722	2,789
May	89,188	80,155	5,398	751	2,854
June	78,921	70,260	5,052	755	2,854
July	60,926	55,027	3,193	506	2,200
August	77,619	70,479	3,805	904	2,431
September	72,109	64,887	3,930	929	2,363
October	81,049	73,058	4,104	1,120	2,767
November	72,866	65,022	4,114	1,057	2,673
December	65,198	57,929	3,769	971	2,529
Total	966,113	866,404	57,522	10,023	32,134
1957					
January	82,025	73,702	4,510	1,008	2,805
February	72,084	64,346	4,188	874	2,676
March	77,418	69,258	4,445	878	2,837
April	77,167	69,141	4,316	894	2,816
May	75,347	67,251	4,421	953	2,722
June	70,959	63,910	3,590	868	2,591
July	60,621	54,847	3,010	825	1,939
Aug.	71,233	64,953	3,278	799	2,203
Sept.	70,804	64,470	3,243	870	2,221

Nickel Averages

Electro, cathode sheets, 99.00%,
f.o.b. refinery, duty included
(Cents per pound)

	1954	1955	1956	1957
Jan.	60.00	64.50	64.50	74.00
Feb.	60.00	64.50	64.50	74.00
Mar.	60.00	64.50	64.50	74.00
Apr.	60.00	64.50	64.50	74.00
May	60.00	64.50	64.50	74.00
June	60.00	64.50	64.50	74.00
July	60.00	64.50	64.50	74.00
Aug.	60.00	64.50	64.50	74.00
Sept.	60.00	64.50	64.50	74.00
Oct.	60.00	64.50	64.50	74.00
Nov.	60.98	64.50	64.50	74.00
Dec.	64.50	64.50	72.48	....
Av.	60.46	64.50	65.165	....

Platinum Averages

N. Y. MONTHLY QUOTATIONS
(Dollars per Troy Ounce)

	1954	1955	1956	1957
Jan.	91.40	81.00	106.30	101.92
Feb.	91.00	78.16	104.34	98.59
Mar.	87.88	78.00	104.23	93.50
Apr.	85.50	77.94	103.92	93.45
May	85.50	77.50	105.23	92.865
June	85.50	78.33	106.50	92.02
July	85.50	81.78	106.50	90.265
Aug.	85.00	84.59	105.76	84.426
Sept.	85.50	91.96	105.50	84.00
Oct.	83.62	94.60	104.85	84.00
Nov.	81.07	103.11	104.50	83.80
Dec.	80.64	106.58	104.50	....
Av.	85.72	86.12	105.18	....

Spot Straits Tin

(Straits, Open Market, N. Y.)

Monthly Average Prices

	1954	1955	1956	1957
Jan.	85.125	87.268	105.036	101.511
Feb.	85.16	90.836	100.803	101.132
Mar.	92.457	91.161	100.786	99.643
Apr.	96.298	91.48	99.268	99.304
May	93.51	91.41	96.994	98.347
June	94.24	93.68	94.589	98.05
July	96.55	97.08	96.143	96.52
Aug.	93.381	96.521	99.049	94.261
Sept.	93.536	96.607	103.809	93.406
Oct.	93.225	96.20	106.023	91.848
Nov.	91.176	97.987	110.921	89.236
Dec.	88.571	108.02	104.268	....
Aver.	91.935	94.85	101.474	....

Prompt Tin Prices

(Straits, Open Market, N. Y.)

Monthly Average Prices

	(Cents per pound)			
	1954	1955	1956	1957
Jan.	84.84	87.628	104.768	101.347
Feb.	85.04	90.75	100.586	100.257
Mar.	91.24	91.065	100.524	99.476
Apr.	96.238	91.41	99.145	99.286
May	93.51	91.38	96.853	98.335
June	94.24	93.64	94.488	98.025
July	96.55	96.825	96.131	96.44
Aug.	93.381	96.456	98.924	94.159
Sept.	93.536	96.256	103.559	93.313
Oct.	93.00	96.075	105.716	91.848
Nov.	91.099	97.882	110.329	89.236
Dec.	88.571	107.75	104.00	....
Av.	91.77	94.73	101.252	....

Quicksilver Averages

N. Y. Monthly Averages

	1954	1955	1956	1957
Jan.	189.60	324.68	277.88	256.00
Feb.	190.00	324.68	270.29	256.00
Mar.	201.63	322.61	261.40	256.00
Apr.	221.36	318.14	267.22	256.00
May	251.20	306.62	267.675	256.00
June	273.46	286.98	260.69	256.00
July	287.40	268.22	256.06	256.00
Aug.	290.71	255.18	256.00	252.20
Sept.	314.08	263.70	256.00	248.58
Oct.	329.50	279.02	255.92	234.48
Nov.	321.17	282.50	255.13	228.33
Dec.	319.96	282.27	256.00	....
Av.	265.84	292.90	261.71	....

METALS, DECEMBER, 1957

Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)

	Stocks beginning of month short tons	Production short tons	Short tons	Sold or Used Value f. o. b. plant	Stocks end of month short tons
1956					
November	62,290	145,081	119,787	60,252,640	87,584
December	87,584	148,391	133,186	67,039,743	102,789
Total	1,679,247	1,591,478			
1957					
January	102,496	147,029	104,394	52,418,766	145,131
February	145,131	119,059	97,886	49,173,176	166,324
March	166,324	135,706	141,529	71,240,311	160,501
April	160,501	139,152	123,549	61,932,877	176,104
May	176,104	145,174	126,152	63,352,473	195,126
June	195,126	138,007	140,277	70,379,484	192,856
July	192,856	142,041	155,531	77,905,184	179,366
August	179,366	143,449	129,839	65,509,199	192,976
September	192,976	129,278	147,169	75,823,527	175,085

Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS
(Bureau of Census — Thousands of Pounds)

	Total	Plate, Sheet, & Strip	Rolled Structural Shapes, Rod, Bar & Wire	Extruded Shapes & Tubing	Powder, Flake, & Paste
1954 Total	2,088,489	1,165,090	357,229	518,070	46,255
1955 Total	2,805,500	1,542,368	365,391	812,311	35,854
1956					
January	251,639	142,049	34,008	67,499	2,118
February	240,999	124,077	33,727	65,261	1,901
March	232,767	128,432	30,972	63,482	1,947
April	260,610	143,859	37,971	69,639	3,316
May	264,378	147,613	39,900	68,106	2,215
June	240,415	132,510	33,438	65,600	2,119
July	247,895	139,571	35,346	64,249	2,736
August	248,457	141,400	32,413	66,315	3,039
September	217,425	117,074	32,154	59,462	2,953
October	252,289	136,546	25,385	73,363	2,255
November	218,272	114,618	31,501	64,197	1,716
December	194,822	99,851	31,787	55,225	1,702
Total	2,870,101	1,577,601	398,602	782,398	28,017
1957					
January	234,805	126,008	35,911	64,227	1,970
February	206,397	109,786	30,330	58,296	1,927
March	229,786	120,077	34,365	66,400	2,190
April	238,212	126,755	34,805	68,284	2,572
May	249,012	130,047	35,680	74,364	2,670
June	227,388	117,103	32,847	69,411	2,630
July	249,047	130,624	39,342	71,339	3,120
August	223,786	117,796	30,918	66,829	3,224
September	215,564	122,787	21,735	63,421	2,802

Aluminum Castings Shipments

(Bureau of Census)

	BY TYPE OF CASTING			
(Thousands of Pounds)	Total	Sand	Permanent Mold	Die Other
1951 Total	515,131	193,378	160,011	151,465
1952 Total	518,979	194,616	146,883	169,732
1953 Total	658,022	214,553	200,025	239,330
1954 Total	609,066	155,738	213,968	232,726
1955 Total	833,058	171,757	298,115	354,804
1956				
April	67,880	14,732	20,718	31,782
May	65,786	15,600	19,669	29,814
June	58,189	13,448	19,067	25,027
July	52,955	12,398	16,388	23,491
August	61,407	13,100	18,067	29,553
September	62,503	12,354	17,855	31,640
October	74,209	14,389	21,120	37,782
November	69,741	14,333	20,673	33,929
December	67,333	13,391	20,557	32,923
1956 Total	801,036	171,763	245,421	376,108
1957				
January	72,999	14,201	20,963	37,194
February	69,451	13,366	21,707	34,311
March	74,527	13,914	22,974	37,521
April	68,284	14,287	20,376	33,493
May	65,108	12,705	20,708	31,602
June	58,547	11,585	17,180	29,700
July	52,173	10,447	16,322	25,339
August	55,735	10,966	18,398	26,319
September	58,692	11,367	17,820	24,900

Virgin Aluminum

Virgin 99% Delivered

Monthly Average Prices

(Cents per pound)

	1954	1955	1956	1957
Jan.	21.50	22.90	24.40	27.10
Feb.	21.50	23.20	24.40	27.10
Mar.	21.50	23.20	24.60	27.10
Apr.	21.50	23.20	25.90	27.10
May	21.50	23.20	25.90	27.10
June	21.50	23.20	25.90	27.10
July	21.50	23.20	25.90	27.10
Aug.	22.12	24.26	26.70	28.10
Sept.	22.20	24.40	27.10	28.10
Oct.	22.20	24.20	27.10	28.10
Nov.	22.20	24.40	27.10	28.10
Dec.	22.20	24.40	27.10	28.10
Av.	21.785	23.655	26.008	28.10

Magnesium Wrought Products

Products Shipments

(Bureau of Census)

	(Thousands of Pounds)			
	1954	1955	1956	1957
Jan.	972	1,776	2,188	2,130
Feb.	1,136	1,648	1,901	2,522
Mar.	1,136	1,947	1,946	2,388
Apr.	892	1,756	2,279	2,511
May	1,129	1,836	2,462	2,230
June	1,312	1,686	2,302	1,881
July	1,032	1,437	2,002	1,428
Aug.	1,111	1,742	2,523	1,540
Sept.	1,183	2,159	2,031	1,501
Oct.	1,002	1,667	861	2,452
Nov.	1,243	1,954	2,141	2,452
Dec.	1,673	1,577	2,452	2,452
Total	13,743	21,186	24,975	24,975

Cadmium Averages

N. Y. Monthly Averages

Cents per lb. in ton lots

	1954	1955	1956	1957
Jan.	200.00	170.00	170.00	170.00
Feb.	170.00	170.00	170.00	170.00
Mar.	170.00	170.00	170.00	170.00
Apr.	170.00	170.00	170.00	170.00
May	170.00	170.00	170.00	170.00
June	170.00	170.00	170.00	170.00
July	170.00	170.00	170.00	170.00
Aug.	170.00	170.00	170.00	170.00
Sept.	170.00	170.00	170.00	170.00
Oct.	170.00	170.00	170.00	170.00
Nov.	170.00	170.00	170.00	170.00
Dec.	170.00	170.00	170.00	170.00
Av.	172.50	170.00	170.00	170.00

Steel Ingot Production

(American Iron and Steel Institute)

Period	Estimated Production — All Companies				Calculated				
	OPEN HEARTH	BESSEMER	ELECTRIC	TOTAL	Per cent	weekly production, all companies	capacity (net tons)		
	Net tons of capacity	Net tons of capacity	Net tons of capacity	Net tons of capacity	Per cent	Per cent	capacity (net tons)		
1952 Total	82,846,439	87.2	3,523,677	65.5	6,797,923	82.6	93,168,039	85.8	1,782,097
1953 Total	100,473,828	97.9	3,565,705	83.2	7,280,191	71.1	111,609,719	94.9	2,140,578
1954 Total	86,827,494	73.6	2,448,104	83.2	5,486,964	62.0	88,311,582	71.0	1,895,741
1955 Total	105,842,586	95.6	3,319,085	69.3	8,338,592	77.2	117,000,566	93.0	2,243,969
1956									
July	1,830,151	13.9			292,012	30.5	1,622,163	14.9	367,005
August	7,213,274	75.6	189,564	46.8	719,769	75.3	8,122,597	74.5	1,833,543
September	9,342,794	101.2	286,978	72.9	792,885	85.7	10,422,659	98.8	2,435,201
October	9,841,002	103.2	330,101	81.2	877,410	91.8	11,048,513	101.3	2,575,411
November	9,430,248	102.2	295,827	72.5	829,925	89.6	10,555,500	100.0	2,460,490
December	9,695,919	101.6	308,465	75.9	833,161	87.1	10,837,545	99.4	2,451,933
Total	102,840,585	91.6	3,227,997	67.4	9,147,567	81.2	115,216,149	89.8	2,203,828
1957									
January	9,829,691	99.0	294,839	77.1	884,232	86.5	11,008,762	97.1	2,485,048
February	8,898,671	99.2	277,682	80.4	810,853	87.8	9,987,206	97.6	2,496,801
March	9,442,164	95.1	275,156	71.0	871,754	85.2	10,589,074	93.4	2,390,310
April	8,820,328	91.8	231,731	62.6	762,721	77.1	9,814,780	89.5	2,287,828
May	8,842,707	89.1	201,864	52.8	747,752	73.1	9,792,323	86.4	2,210,457
June	8,498,903	88.4	210,915	57.0	681,584	68.9	9,391,402	85.6	2,189,138
July	8,086,519	81.4	194,638	50.9	627,575	61.4	8,908,732	78.6	2,015,550
August	8,297,172	83.6	204,723	53.5	731,995	71.6	9,233,890	81.5	2,084,400
September	8,135,139	84.7	185,967	50.2	656,800	66.4	8,979,906	81.8	2,097,642
October	8,348,522	84.1	154,577	40.5	694,618	67.6	9,197,710	81.1	2,076,234
November	7,674,000	79.9	135,000	36.5	584,000	59.0	8,393,000	76.5	1,956,000

Blast Furnace Output

(American Iron and Steel Institute)

	net tons			
	Pig Iron	Ferro-manganese	Spiegel	Total Capacity
1947				
Ttl. Yr. 58,507,169	702,861	59,209,730	99.1	
1948				
Ttl. Yr. 60,195,941	712,899	60,848,240	90.2	
1949				
Ttl. Yr. 58,613,779	592,564	54,206,248	76.8	
1950				
Ttl. Yr. 64,810,272	678,896	65,484,168	91.6	
1951				
Ttl. Yr. 70,487,880	745,381	71,282,761	98.3	
1952				
Ttl. Yr. 61,528,665	629,926	62,158,591	84.3	
1953				
Total	74,987,721	855,038	75,642,759	95.5
1954				
Total	58,119,882	568,735	58,688,117	71.6
1955				
July	6,859,358	61,166	6,859,359	88.8
Aug.	6,859,580	71,902	6,860,482	92.5
Sept.	6,658,875	49,788	6,708,366	97.8
Oct.	6,905,280	59,993	6,955,278	97.6
Nov.	6,636,649	62,341	6,699,995	97.0
Dec.	6,887,667	65,849	6,958,616	97.7
Total	77,114,073	668,755	77,800,821	92.7
1956				
Jan.	6,985,945	63,619	7,049,554	97.1
Feb.	6,539,199	63,618	6,602,817	97.2
Mar.	7,082,877	65,566	7,149,443	98.5
Apr.	6,860,833	62,746	6,924,553	98.6
May	6,878,163	47,840	6,920,942	95.8
June	6,887,605	46,981	6,943,559	91.6
July	1,989,518	17,491	1,107,009	15.2
Aug.	5,160,669	41,548	5,142,217	70.8
Sept.	6,878,064	59,584	6,932,648	98.7
Oct.	7,245,650	69,909	7,315,559	100.8
Nov.	6,977,457	58,614	7,036,091	100.1
Dec.	7,268,743	65,841	7,334,584	101.0
Total	75,301,134	664,341	75,965,475	88.9
1957				
Jan.	7,209,547	72,826	7,282,373	98.8
Feb.	6,596,133	61,973	6,638,106	100.0
Mar.	7,179,100	67,779	7,246,879	98.3
Apr.	6,810,102	60,784	6,870,886	96.3
May	6,879,881	65,566	6,945,447	94.2
June	6,593,326	66,266	6,659,592	93.3
July	6,625,901	66,031	6,691,932	90.8
Aug.	6,719,763	61,988	6,781,751	92.0
Sept.	6,569,074	58,837	6,627,911	92.9
Oct.	6,454,450	65,028	6,519,478	68.4

Galvanized Sheet Shipments

(American Iron and Steel Institute)

	1954	1955	1956	1957
Tot.	2,362,632	2,864,497	2,957,991	

* Combined with August figures.

Steel Ingot Operations

(Percentage of Capacity as Reported by

American Iron & Steel Institute)

Week

Beginning	1954	1955	1956	1957
Jan. 7...	75.4	81.2	97.6	98.4
Jan. 14...	74.3	83.2	98.6	96.4
Jan. 21...	74.1	83.2	99.0	96.6
Jan. 28...	75.6	85.0	100.4	97.6
Feb. 4...	74.4	85.4	99.3	97.1
Feb. 11...	74.4	86.8	99.1	97.7
Feb. 18...	74.6	89.1	98.8	97.8
Feb. 25...	73.6	90.8	98.8	96.0
Mar. 4...	70.7	91.9	99.9	94.2
Mar. 11...	69.3	92.9	100.0	93.8
Mar. 18...	67.6	94.2	100.6	93.5
Mar. 25...	68.1	93.7	99.5	92.4
Apr. 1...	69.1	94.4	99.6	90.6
Apr. 8...	68.0	95.3	97.7	90.3
Apr. 15...	68.0	94.6	100.9	90.4
Apr. 22...	68.6	94.6	100.2	88.7
Apr. 29...	68.7	95.6	100.5	87.0
May 6...	69.4	96.6	96.4	86.7
May 13...	70.9	97.2	95.2	84.2
May 20...	71.8	96.9	95.3	86.4
May 27...	71.2	96.4	97.3	88.0
June 3...	70.2	95.8	96.3	87.5
June 10...	73.2	94.7	96.7	86.5
June 17...	72.3	96.0	93.4	85.2
June 24...	72.1	95.0	93.0	84.0
July 1...	65.8	71.1	84.9	78.5
July 8...	60.0	85.9	12.3	78.7
July 15...	64.3	91.2	12.9	79.3
July 22...	65.3	91.0	14.6	79.4
July 29...	64.2	90.7	17.0	79.4
Aug. 5...	64.0	86.9	16.9	79.8
Aug. 12...	64.0	89.4	57.5	80.6
Aug. 19...	61.8	90.2	87.5	82.1
Aug. 26...	63.5	90.6	95.8	82.2
Sept. 2...	64.0	93.4	97.0	81.0
Sept. 9...	63.0	93.8	98.7	81.9
Sept. 16...	66.3	95.7	100.6	82.1
Sept. 23...	68.7	96.1	100.6	82.2
Sept. 30...	70.4	97.0	101.6	82.6
Oct. 7...	71.0	96.7	101.8	82.2
Oct. 14...	72.8	96.5	100.9	80.9
Oct. 21...	73.6	98.9	101.4	80.2
Oct. 28...	74.5	100.0	101.2	79.7
Nov. 4...	76.4	99.4	101.3	78.0
Nov. 11...	77.2	99.6	100.6	77.7
Nov. 18...	79.3	99.2	100.2	76.0
Nov. 25...	80.3	100.1	100.1	72.1
Dec. 2...	81.4	97.6	101.1	71.5
Dec. 9...	82.5	100.1	101.3	69.2
Dec. 16...	81.5	100.3	102.0	....
Dec. 23...	72.4	96.9	94.3	....
Dec. 30...	77.6	95.7	97.3	....

Shipments of Tin-Terneplate

(American Iron & Steel Institute)

	Hot Dipped		Electrolytic	
	1956	1957	1956	1957
Jan.	81,034	88,174	402,627	492,502
Feb.	77,877	63,040	404,193	407,005
Mar.	132,257	113,593	598,129	618,827
Apr.	138,556	120,037	554,575	664,590
May	70,282	34,292	354,204	278,769
June	84,371	32,783	466,060	321,584
July	*	39,234	*	380,815
Aug.	81,005	40,542	408,903	409,515
Sept.	72,400	36,983	396,588	333,078
Oct.	92,394	28,917	415,451	293,668
Nov.	70,510	325,408		
Dec.	68,385	288,896		

Tot. 950,070 4,615,068

* Combined with August figures.

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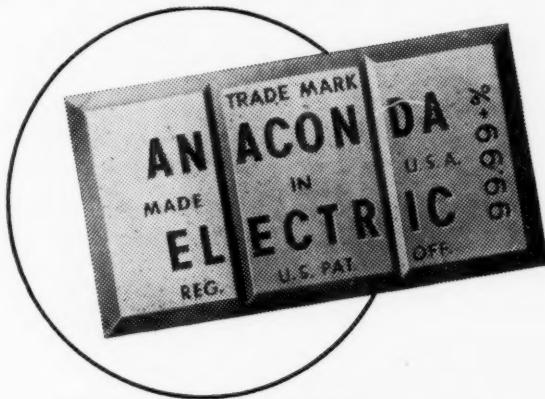
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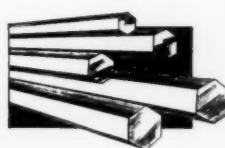
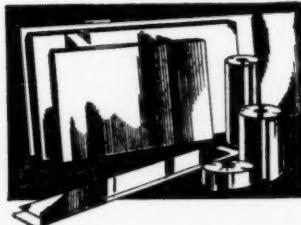
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